A Trip to Cuba and the Southern States, No. 1.

DECIDEDLY it is a pleasant thing to leave the wintry North, and speed away to the land of the orange and the myrtle. Man has just made himself wings, and, like the birds, he can change his climate at pleasure. In a week he may run through enough parallels of latitude to leave behind him the wintry snow, and enter upon a perpetual summer; he walks from his conservatory, where a few plants are barely kept in health by fires and steam, and before he has taken half a dozen good naps, he wakes up in a region where the skies are the only glass, and where a greenhouse has never been thought of; from frozen grounds, untillable till May, he flies to a land where the pine-apple ripens as it grows neglected by the roadside, and where fruits hang upon the trees till long after they have put forth their flowers for another crop. The orange is in full bearing, with height and limbs almost comparable to our apple-tree; its delicious golden product tempts the eye till it is attracted to the glorious plume of the neighboring cocoa-nut, or the still more stately Royal Palm, whose height and ostrich-like feathers are a prominent ingredient of every scene. Does arboriculture engage his mind, the visitor finds innumerable trees, bushes, and vines, loaded with leaves and flowers such as have never been noticed in his vocabulary. This is literally the condition of things

> "In that fam'd land, by daring Colon given
> To the admiring gaze of pleased mankind.
> * * * * *
> But insulted freedom yet may rear her throne,
> And raise congenial altars there."—W. Elliott.

A short visit to Cuba enabled us to embody a few notes that may be acceptable to our readers, and possibly we may be the means of inducing others to make it a winter residence whose state of health requires an equable climate, for such this eminently is.

Climate, it is true, is not everything, but to many it is of great importance, both to the healthy and the invalid, and it is beginning to be discovered that our Northern winters are as much, if not more to be dreaded than our summers. Hundreds now go to Cuba where thousands will hereafter make the trip when the advantages are more generally known, the facilities more multiplied, and the local government more disposed to receive us than is even now the case. The restraints on the movements of Americans are considerably relaxed of late, and though some ridiculous regulations are still in force, there were none, the past season, which were not easily borne or laughed at. More travellers from the States have resided on or visited the island the past winter than was ever before known, and it may be supposed they have now and then left an impression, and made a mark, which gradually may prove an entering wedge for the Anglo-Saxon race. Indeed, many of our countrymen are settled there, and manage some of the most important interests. They are engineers on the railroads and sugar plantations; they keep the only decent hotels, purchase land here and there, and, if facilities were given, would soon overrun the country with improvements; but the Spanish policy is

one of a high tariff character, and discourages manufactures for the sake of an enormous revenue, of which the Government is cheated by its officials, of at least one-half to two-thirds.

The trip to Cuba is of easy accomplishment. The Quaker City, a very fine steam-vessel, runs with regularity from New York to Havana and Mobile; the Black Warrior, the Cahawba, and the Empire City, to the first-named port and New Orleans; though not equal to the "Quaker," as they call her, the three latter are tolerably comfortable, but require overhauling in some of their arrangements.

Our own voyage was made from Philadelphia to Charleston, S. C., in the steamship State of Georgia; this connected with the very clever and clean steamer, Isabel, running only to Key West and Havana, in which every desirable comfort is found. These two ships carried us safely to our destination in seven days, nearly one being lost by detention at Key West, in order that we should not arrive in the night, and be obliged to cast anchor outside the Moro Castle,* according to Spanish usage. After enjoying the novelties of this very novel city of Havana, by examining its peculiarities and institutions, visiting all that was attractive in its neighborhood, and botanizing as much as possible, we went into the interior, visited sugar and coffee estates in considerable numbers, resided some time on one of the latter, took a peep at Matanzas and its beautiful port and neighborhood, and returning to Havana, concluded some further researches, held long conversations with a most intelligent native botanist, who is doing the world a service by his labors, and took our departure, in the Empire City, for New Orleans.

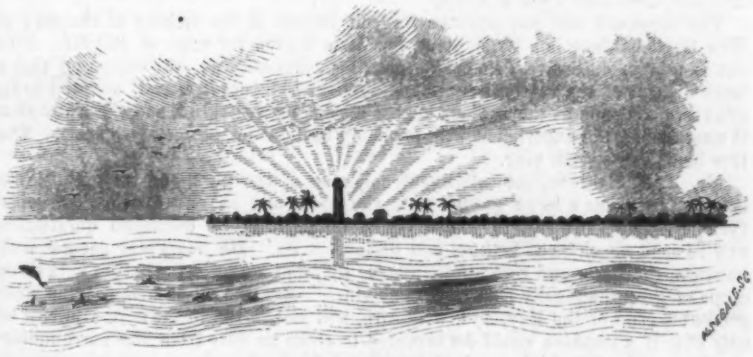
At New Orleans, we enjoyed some advantages, and, visiting Natches under happy auspices, found there (before the middle of April) the climate and the roses of our middle of June. Thence, *via* New Orleans to Mobile (where we found, April 10, all the forest-trees in full leaf), we ascended, on the 11th, 12th, and 13th of April, the Alabama River, whose banks were clothed in full summer garb, all the forest-trees being in leaf, and azaleas and the dogwood in bloom. The weather during this river ascent of four hundred and fifty miles, was cold and very chilly, as it had been at Natches, though the roses were in full beauty. Landing at Montgomery, Alabama, in a northeast rain, *twelve hours of railroad travel* transformed the scene from an entire spring to the perfect desolation of winter. At Atlanta, there was no green leaf, the forest was silent, and the cold became overpowering to a system relaxed by the perpetual summer we had enjoyed in the tropics; this dreariness of nature continued all the way to Philadelphia, enlivened a little only in the lower land of Augusta. Frost every night had already injured the corn and sugar about New Orleans, and had done its work on the fruit of Georgia and other States. It was impossible to keep warm except in tight rooms or rail cars, and, after our return home on the 18th of April, our own neighborhood experienced a snow-storm of great severity; all of which seemed to afford an argument for Cuban winters, where we had left, a few days before, the fruits and flowers under the influence of the thermometer steadily pointing, in the morning at 76°, and at noon, at 81°; where, in short, reigns perpetual summer; and the porter of the hotel, whom we found shelling peas in early March, as he does all the year, was engaged in the same pleasing occupation when we left. Peas were plentiful at New Orleans, and strawberries could be had for a consideration, but they possessed less flavor than our own. All agreed, wherever the old topic of the weather was talked over daily, that it was an unusually cold spring,

* The visitor to Cuba should be informed that the land side of the Moro Castle, which presents a level surface, is a place of danger. We were here unexpectedly saluted by a cannon ball, fired at a target, while collecting corals, shells, and sponges.

and we concluded we had done as unwisely as most do, by leaving Cuba too early.

On the 3d of March, at Charleston, vegetation was much more forward than in the higher regions of Georgia on the 10th of April. Peach-trees were in bloom, and tomatoes of considerable height, but a cold night or two had injured the fruit, and the orange-trees looked discouraged. We noticed, at Charleston, many plants and shrubs living in the open air, that, if we could possess, our gardens would equal almost any in the world; among these, the Gloria-mundi, or Laurus cerasus, and the Magnolia grandiflora, were the most striking and useful as ornaments; one of the latter, in a town garden, is forty feet in height. Considerable attention is paid here to gardening, but less than the climate would pay for; grass is not very successful, even with great care, and here we bade adieu to that luxury of the eye in the colder North, for many weeks.

Our party (now a large one) enjoyed the trip down the Florida coast greatly, though the weather continued cold till we reached the latitude of the Bahamas. The following sketch presents characteristic views of the coast, the palmetto here, the highest object, and the everlasting solitude of the beach.



CAPE FLORIDA.

St. Augustine was passed, but not seen. Generally, we were near the coast, which fatigues by its monotony, but this is entirely obliterated by the scenery and vegetation which presents itself at Key West, in novel forms to a Northerner who visits this region for the first time. Most of the productions of Cuba flourish here in perfection. A worn-out mind, accustomed to the wintry winds of Pennsylvania and the North, may here fairly and fully enjoy a new sensation in his first glance at the glorious palm-trees.

As we neared the wharf in early morning, all the travellers were on deck, in full rig for a run on the dry land, but we were not all fully prepared for the scene that rapidly came in view. "What tree is *that*?" exclaimed a dozen tongues at once. "Oh! how beautiful!" "glorious, indeed!" was heard from every quarter, as the ostrich-like plumes of the cocoa-palm waved in graceful beauty in a tropical breeze, and displayed the nuts hanging in their various stages of growth, from the flower to the full-grown fruit. We all made rapid steps to get a near view; they were planted near the wharves, and having but lately come into bearing, presented the appearance of the handsomest shade tree we had ever conceived of. When more

fully grown, the leaves and fruit are so elevated as to present a less pleasing aspect. That first sight of the cocoa-nut palm has left an impression that no subsequent experience at all parallels for intensity. A few minutes more, and we were under the escort of Major Saunders, and in the confidence of his colored man, in search of milk from the nut. Sambo took us to the garden of one of his black friends, with a cottage no doubt much like Paul and Virginia's, and with little negroes running about in nature's garb under the palms. Sambo bought liberty to ascend, and soon detached the ponderous nuts from their stems, the mothers holding their children like dogs in a leash, lest the falling fruit should crack their skulls. We betrayed no ignorance by giving directions, and Sambo soon found an axe, with which he chopped off the upper end of the fruit, and upset it into a pint and a half tumbler, first showing us that it was *entirely full* of the almost transparent liquid. The elevated position in the wind which it had enjoyed, had kept the milk cool, and we demolished the whole, the regular charge appearing to be sixpence; the empty shell, and its network of green covering, was cast away as useless, but an examination displayed a very thin lamina, not thicker than the blade of a knife, of a white, soft substance, which, as the milk dries away, and the nut becomes older, thickens to the consistence we find in its more ripe and desiccated state at home.

The cocoa-nut will not produce its fruit except in the vicinity of the sea; at Kew Gardens there is a large plant, but it is barren for want of salt air. This nut is now in extensive demand for making palm-oil, and it is supposed that a large district of the yet entirely uninhabited Florida coast is well adapted to its growth. As soon as the Indians of that region are got rid of, and the white man is unmolested, the experiment will probably be tried on an extensive scale. The tree bears in its sixth year.

Mr. J. P. Baldwin, the intelligent collector of the port, and an enthusiastic horticulturist, has a large garden near the town, and an active negro gardener (yclept Sandy Cornish), to whose varied information we commend questioners new to such novelties as he hoes and discourses on. He has great success with bananas, the sugar and rose apple, guava, &c., and he declares that he gets three crops of grapes annually from the same vines. But the Sisal hemp is the most profitable crop of the Key, and, with care, will yield $400 to the acre at a cost of only $10, if a machine could be invented to clean its fibre from the surrounding aloe-like substance which envelops it. Sandy showed us many novelties, but as these came more fully under our notice in Cuba, we shall defer them to a future page.

The orange attains great perfection at Key West, and the cultivation of this and the cocoa-nut, &c., for exportation, is profitable. The island, though highly attractive for its vegetation, is not a desirable residence; it depends mostly upon the Isabel for its supplies and the mail, and its coral rocks present no features of beauty. We had left the region of snow which continued abundant at home all March, and found the whole population here clothed in summer costume, with Panama hats, at this early date; with slight exceptions, this is the costume of the entire winter. The officers on the station had much to say of the utter uselessness of the war carrying on against the Indians, and admitted that though five thousand troops were in the field, only one of the enemy had yet been captured, and she was a woman!

As the editors of the *Horticulturist* have rarely or never ventured of yore beyond the latitude of Washington, however incompetent to the task we shall endeavor to interest our readers with a few memoranda respecting a climate as new to some of them as it was to us, and, in our next number, shall enter briefly upon Cuban topics.

THE PROPER EXPRESSION OF A RURAL CEMETERY.

BY PROFESSOR EDWARD NORTH, CLINTON, NEW YORK.

ONE of the strongest desires of man is that of expressing himself to his fellows, and asserting his own individuality. The ways in which, by expressing his individuality, one sways the sentiments, and brightens or glooms the happiness of others, are more numerous than we are apt to suppose. The men who write books, make speeches, and occupy pulpits, are not the only men who express themselves to their times and their neighborhoods forcibly and influentially. Every one who mixes with his fellows in the affairs of life is a responsible source of influence. He makes a constant expression of himself by his walk and work, his conversation and example. This he does as really as though he issued a daily newspaper, or preached a weekly sermon. The very dress in which he appears among men may intimate the possession of praiseworthy qualities, or may placard and parade subtlest weaknesses that he would fain conceal even from himself. We also express ourselves tangibly and legibly in our religious and political associations; in our homes, gardens, and farms. The house one owns and occupies, more especially if it be a house in the country, will betray to passers-by something of his personal tastes, habits, and attributes.

These different modes of self-expression, in which written or spoken language is replaced by emphatic symbols, belong peculiarly to the living. Yet our self-expression may continue, with more or less of emphasis, even after we have gone to our last slumber. We are not condemned to die like the brute, making no sign, remembered in no epitaph. It is our privilege to speak from our graves, and with this privilege comes the inquiry, what expression we shall choose for ourselves in our place of burial, in the memorials that tell where our dust reposes, in the surroundings and decorations of the spot. What shall be the lessons taught by the grave-ground we expect to occupy, and which, by a serious forethought that betokens a man's innate longing for a glorified reunion of soul and body, we select, embellish, and consecrate, in anticipation of death? Shall the last earthly self-expression we are allowed to make be one of gloom, negligence, and despair, or of hope, cheerful resignation, and pious embellishment?

I. In the expression we should choose to embody in our places of sepulchre, ideas of permanence, sacredness, and security, must be allowed to be of the first importance. Interments in the heart of a thronged and garish city, or in a spot through which a thoroughfare is likely to be opened, violate one of the finest, deepest instincts of our nature. The inscription on Shakspeare's monument—

> "Blest be the man that spares these stones,
> And curst be he that moves my bones,"

may not fully sort with our conception of posthumous urbanity, but it enunciates a feeling native to human hearts. Every stone in the colossal pyramids built by the toil of centuries and the wealth of empires for the sepulchres of Egyptian kings, proclaims the soul's desire, not more of immortality than of an undisturbed repose for its mortal tabernacle. We desire that the house of clay, tenanted by us for a few short years, and associated with our spiritual struggles and aspirations, should moulder away in silence and inviolate security. What we desire for ourselves we also desire for our kindred, our neighbors, for all, indeed, who share in our mortality and our hopes of a better life. We sympathize with the heroism of Antigone in the Attic play, although our sympathy descends to her from the van-

tage-ground of a Christian faith, when she declares that she would count it glorious to die in the act of performing burial rites for her outlawed brother, and that she will rescue his body from dishonor in spite of a tyrant's edict and armed opposition. We shudder at the desecration of crowded cemeteries in our large cities when ruthless mammon breaks down moss-covered headstones, invades the sanctity of family vaults, shovels out the relics of whole generations, and lays open streets, or sells building-lots, where the hush of the sepulchre ought to have been perpetual.

It is pleasant to know that in so many of our States the desire for permanent burial places is respected by law. In the State of New York the property of cemetery associations is exempt from all public taxes and assessments. It is not liable to be sold on execution, or for the payment of debts due from individual proprietors. After the title of a plat has been transferred to an individual, and an interment made therein, the plat becomes his inalienable property, descending to his heirs and their heirs forever, or so long as they choose to retain it.

In this age of sudden changes, revolutions, and runnings to and fro, when household altars are set up to-day and deserted to-morrow, when a church is consecrated this year for sacred worship, and next year sold for a theatre or a barn; when even religious principles are pulled up every now and then, "as children pull up the shrubs they have planted, to see if they have taken root," it is pleasant to be permitted to organize cemeteries that carry the elements of permanency.

Nature consents to co-operate with us in doing deathless honor to the dead. In one of his prophetic odes, the poet Horace boasts that he has wrought out for himself by his verse-craft a monument more lasting than brass—

> Quod non imber edax, non Aquilo impotens
> Possit diruere, aut innumerabilis
> Annorum series, et fuga temporum.

It were not extravagant, and would savor less of vanity, for those who secure plats in a rural cemetery to indulge in anticipations equally confident, though with a chastening of melancholy, and to foresee in the trees which they there plant a memorial of respect for the dead, an expression of elevated character, and a pledge of their grateful remembrance in the remote future, which the driving storm shall rather feed than waste, which the fierce winter's rocking winds shall nurse into more stalwart grandeur, which shall gain something of beauty and venerable strength from each revolving year. Non omnes moriemur. Even in our bodies we shall not utterly perish, so long as

> "The oak
> Shall send abroad his roots and pierce our mould,"

so long as

> "The yew-tree graspeth at the stones
> That name the underlying dead."

II. It is also befitting that a permanent and ornate cemetery should aim at fulness and accuracy in its historical expression. Every burial-place is a repository of unorganized history. An Indian grave-mound that carries neither epitaph, name, or date, will furnish crude materials for the historian's use. Unearth the martial and domestic implements buried with the Indian warrior, and they will give glimpses of information, more or less reliable, about his habits, wealth, social standing, and the superstitions of his tribe. From the sepulchral monuments of the ancients we infer many ideas, not elsewhere preserved, respecting their domestic usages, civil institutions, and their progress in æsthetic arts. A large share of what we know about the Pharaohs is embalmed with them in the dark cerements

of the tomb. The gravestones of a civilized people perpetuate multitudes of special facts in the history of families and individuals, which we are prone to undervalue, partly because familiarity brings indifference, partly because we cannot anticipate the coming events that may cause these facts to be eagerly sought after and organized into history. There is an immense fund of crude material for biography spread out over the uncounted and too often uncared-for gravestones of the generations gone before us. The merriment sometimes indulged in over the inscriptions in our early burial-places is a mark neither of reverence or of wisdom. We may smile, if we will, at bad latinity and worse anglicisms, at wretched puns and halt verses, false rhymes and mis-spellings; but, beyond such verbal faults, there is a fulness of detail in these old quaint epitaphs that gives them a high historical value, to be enhanced with each succeeding year. As autographs of national character and unintended records of primitive society, they hold up a mirror to traits of picturesque simplicity and massive strength, which neither Macaulay nor Bancroft could more faithfully exhibit.

At the present time, the tendency of our monumental literature is to barrenness and reticence. In shunning one error, another has been fallen into equally censurable. Costly and durable shafts are often erected without the fulness of epitaph, the accurate dates, and the analysis of character, by which their historical value would be largely enhanced. Apparently it is overlooked, in such cases, that the literature of cemeteries is addressed to strangers as well as to friends and acquaintances, to coming generations as well as to the living. Completeness without garrulity, deserved praise untainted by flattery, grief and solemnity lighted up by Christian hope, are qualities of style appropriate to a tombstone. The difficulty of composing faultless epitaphs is not a sufficient reason why such tributes to the memory of departed worth should be withheld.

III. It deserves to be added that the decorations of a rural cemetery should be appropriately emblematic and typical of Christian sentiment. Ornament introduced for its own sake, that solicits admiration and seeks to dazzle, is wholly out of keeping. The embellishments should be such as will harmonize with subdued feelings and serious frames of mind. They should not please the eye simply, but touch the heart. A landscape artist can so select and group his trees and shrubs, a sculptor can so conceive and execute his designs, that they shall invest the idea of death with sweet suggestions of repose and comforted sorrow and a better life.

In the fitly chosen words of another,* "Here let there be trees, with their grateful, soul-subduing shade; there let us see the open lawn and cheerful sunshine; around us, on every hand, let us behold the open bud and springing seed, types of the resurrection; and in the distance, let there be, if possible, glimpses of the blue hills, suggestive of the mountains where the departed walk."

To what extent trees, so multitudinous in their differences of habit, tissue, foliage, color, flowering, fruit, and final use, might be planted as commemorative types of individual character, is a question belonging less to the comprehensive design of this article than to the æsthetic details and ideal possibilities of sepulchral gardening.

Numerous as are the varieties of moral and intellectual attribute, most of them could be fitted with a living emblem from the countless growths of the forest. The language of trees is universal, like that of a statue or a painting, and needs no translation. In portrayals of scriptural character, inspiration frequently retreats from the insufficiency of dry statement into the live language of typical

* Rev. A. D. Gridley, Horticulturist, June, 1855.

trees. History presses a volume into a word when the unbending hickory is taken to represent the hero whose will is enthusiasm to an army, and law to a nation. The fitness of a tree to symbolize and commemorate a character should not be distrusted, until we cease repeating and admiring that requiem-toned outburst of Shenandoah's rustic oratory: "I am an aged hemlock. The winds of a hundred winters have whistled through my branches. I am dead at the top."

In the adorning and keeping of a grave-garden, everything impertinent and offensive, everything at variance with severe taste and the Christian's hopeful sorrowing at the loss of friends, will be carefully excluded. No tipsy, reeling monuments will offend the sight, no rank weeds or tangled briers, no neglected walks or unshaven lawns, will force the suggestion that the buried are farther away from memory than from sight. It is to be hoped that the time is coming when no bin-like unsightly fences, or hard iron palisades will surround the lots appropriated to families; such close unrural circumvallations, with their pickets, padlocks, and paint, have an unsocial expression. They look as if neighbors were suspicious of each other, even in their graves; while those having lived, suffered, and rejoiced together as kindred, finally sleep together in family groups, the divisions of the ground, marked possibly by low evergreen hedges, should be such as to recognize a brotherhood in Christian faith and a common humanity.

VISITS TO COUNTRY PLACES.—NO. 10.
AROUND BALTIMORE, MD.

Hampton, the seat of John Ridgley, Esq., some nine miles north of Baltimore, towards the Pennsylvania line, will strike the visitor, accustomed to the cottage *ornée* only, as expressing more *grandeur* than anything in America. The mansion, situated on a domain of five or six thousand acres, was erected soon after the Revolution, 1783 we think, is one of those elegant and yet substantial dwellings which our fathers knew so well how to enjoy. It brings at once to the mind the "Republican Court," as Mr. Griswold calls General Washington's establishments, and one expects to see Martha Washington issue from the door in the dress of the portraits in that veritable book. The façade is one hundred and eighty feet in length, with offices attached; it is all of the best materials, and in the finest preservation. The entrance hall is of great width, and passes the visitor to the south front, where is the terraced garden. This hall is furnished as a large living-room, and is, in fact, such, with the addition of its being a noble picture gallery, where are collected some of the best specimens, including family portraits in full lengths by Stewart and the best painters of the day. The large windows at the sides of the doors are embellished with fine colored glass in elaborate figures and pictures, and take it altogether we do not hesitate to pronounce the *tout ensemble* of the very finest kind; the expression involuntarily occurs—

"And Grandeur, a magnificent abode."

If all this strikes you as new and beautiful and rare, the impression is soon enhanced by the kind greeting and the suavity of the lady of the mansion, who would grace a palace, or make a kingdom of a cottage; other members of a large family could be particularized, if it were our duty, or it were modest to paint portraits; and it is just here that our difficulty occurs as we attempt descriptions where the best half has to be entirely omitted. Suffice it, then, to say that at the mansion of "John Ridgley of Hampton" there is everything that the human mind need covet, and that it fully represents at this day, the scenes of what, for

want of a better, we must again call the "four-in-hand" style, here literally such, but on which it is not now our object to dwell.

Some of the original planting was good for that age, but our ancestors had not the same choice of trees as their descendants, and if they even knew *what to plant*, could procure the trees only at great cost and with difficulty. Importations were unknown, and transportation from the few commercial nurseries was attended with too great delays to expect success. Fruit-trees were almost the only things sold in those days by nurserymen. The resort then was to the trees of the vicinity, and at Hampton are specimens of cedar hedges of much age that most emphatically exhibit their want of adaptability for that purpose as a permanent ornament. They have had a period of beauty, have lost their lower branches, have been cut by the frost and the winds, and are to be replaced with hemlock and arbor-vitæ, &c. The old cedars dispersed about the terraces, and which must have had a good effect when in their perfection, are now much injured, but still stately, and telling of the days of their elegance when a former generation inhabited the mansion.

With this exception, the terraced garden and the flower garden are entirely complete. Grass is employed for its broader walks to prevent washing, and it is kept short and in the finest condition; the whole air is that of neatness, and presents a scene entirely in accord with the dwelling. We could not but remember the terraces at Versailles as we stooped in the shadow of long rows of full-grown lemon, orange, and shaddock trees, covered with enormous fruit, blossoms, and leaves, giving an expression which nothing ever will give that is not foreign to the climate. The lemons on these trees are of extraordinary size; this family of exotics has a large house for its especial winter quarters.

A beautiful Swiss cottage in fine taste greets the weary at one end of the garden, and behind it are the extensive hothouses, graperies, and orchard-houses, from which the best evidences of the success of the gardener, Peter Reed, were found on the dinner-table. Mr. R. should remember, and he probably does, that the Americans say Prince Albert has got "a good situation," and if a gardener can congratulate himself on having one also, it should be Mr. Reed. He is surrounded as few can hope to be.

We could take our readers to the fine stables, and record their costly contents, describe works of art, and the glowing ruddy grandchildren who embellish everything, but we refrain. Hampton has rarely appeared in print, and one scarcely knows where to lay down the pen when such fascinations are met with in such profusion.

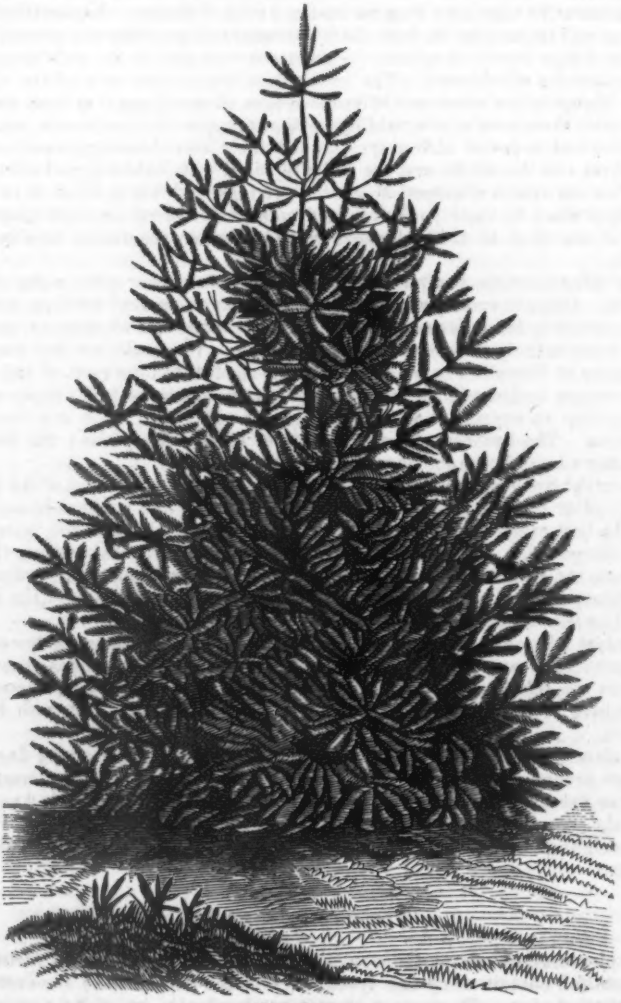
The owners are fully impressed with the beauty of trees; some very fine specimens are around the mansion, and progress is marked by the conversation in which the relative success of importing from France or England is knowingly discussed.

The neighborhood of Baltimore will afford us occasion for one or two more sketches.

ABIES PINSAPO.

The pleasure-grounds at Ribston, England, which are extensive, varied, and very beautiful, contain many fine specimens of trees and shrubs; the evergreens are particularly fine. There are a great many handsome promising young Conifers about the ground, and among them some very fine young trees of Cedrus Deodara, also two very handsome young specimens of Abies Pinsapo—one about eight, and the other about twelve feet high; both are perfect gems, of the general

appearance of which some idea may be gathered from the accompanying representation of one of them. We also noticed a nice, healthy plant of Taxodium sempervirens, which has stood out several years unprotected. It is, however,



Abies Pinsapo.

growing in a dry, sheltered spot. Cryptomeria japonica has also stood the winters well, unprotected. There is also a fine tree of Pinus excelsa; there are a

number of other very flourishing young plants of Conifers in the grounds.—*London Florist.*

[The Abies Pinsapo is very striking and handsome for a stiff tree, and is somewhat like the Silver Firs, only its leaves are curiously recurved, having the beginning of a resemblance to the Araucaria. The specimen at Wodenethe, we find by our memoranda, is six feet high, and perfectly hardy.—Ed.]

GARDEN VEGETABLES, NO. 6.—OKRA.

BY WILLIAM CHORLTON.

This plant is the *Hibiscus esculentus* of botanists, and one of the natural order *Malvaceæ*, the whole of which are more or less mucilaginous. Okra in particular owes its culinary importance to the abundance of the aforesaid property. It is a valuable emollient and demulcent, is constantly used in the tropics for thickening soup, and is now becoming quite popular in our own country for the same purpose. A bowl of good *Okra*, *Bendee*, or *Gombo* soup (it is known by each of these three names in different countries), is indeed a great luxury, and acts medicinally by allaying irritation of the digestive organs when subject to inflammation. There is little doubt but, during hot weather, when these disorders are so prevalent, that this is one of the most wholesome kinds of food, and we never find any person who does not relish it after having once become acquainted with the article.

Being a native of the West Indies, and constitutionally a tropical plant, the soil is required to be somewhat warmed by the sun's influence before the seeds are sown, or they will rot in the ground. For extreme northern latitudes the latter part of May is soon enough, while in the Middle States it may be two weeks earlier, and proportionately more so farther south. Okra will grow in almost any kind of soil if well drained, but does not succeed upon a wet cold bottom; the best is a fertile sandy, but not over rich loam. Rank or fresh manure causes the plant to grow too luxuriantly, and reduces the comparative yield of pods. In very rich soils the stalks will extend to six feet high with numerous side branches, and will be later in beginning to produce, while in poor ground they will attain to no more than three feet, and commence to flower when only a few inches high. In the former case the rows may be four feet apart, and in the latter, three feet will be amply sufficient. Draw drills one inch deep, sow the seeds three inches distant, and, when the young plants have grown three or four inches, thin out to eight or ten inches; at the same time hoe up some soil to the stems, which will encourage the advancing development.

The young seed-pods are the only portions made use of; they are in a fit state for gathering when grown to about half their size, and still brittle. If left on the plant longer they soon become tough and stringy, and are then of no value. As the pods are produced in quick succession throughout the season, and as also, if they be left ungathered, the plants would sooner become exhausted, it is necessary to go over the crop every three days, cut off all that are ready, and what are not wanted for immediate use should be cut transversely into thin slices, and dried for winter use. During the drying process it is requisite to keep them in a situation where the moisture can evaporate freely and soon, and also to be spread out thinly. They may be exposed to the sun during favorable weather in the day time, but taken in at night; or they may be laid near a fire until fit to be packed away; before doing so, however, all the moisture should be dissipated, or they will become mouldy and worthless after a time.

How to prepare Okra Soup.—Stew a shin of beef thoroughly, and until the meat falls away from the bones, strain the liquid and set away until cold, then remove all the fat from the surface, when, if good, the under contents will be a stiff jelly; put this into a stewpan, with a dozen sliced Okras, six or eight tomatoes, according to size, the grains of three heads of sweet corn; boil one carrot until tender, and afterwards chop up with two onions, one ox-heart pepper, a small handful of parsley, a little celery tops, and a small portion of summer savory, or common thyme. Simmer all together for two hours, salt to taste, and serve up hot.

THE POMOLOGY OF THE WEST.

BY "PRYOR'S RED."

How great the subject! How vast the country! What multitudes are daily rushing to fill up its vast plains, its prairies, and its forests! And what a field is presented for the labors of the agriculturist, horticulturist, and pomologist.!

The genius of Downing has given to the Northeastern States what the West now demands—a book of the fruits and fruit-trees of the Mississippi Valley. The confusion in the nomenclature of the fruits of this vast section of country, is rapidly increasing; the reasons are, first, because nurserymen, ignorant of the importance of the subject, are selling trees, either not correctly named, or else knowing nothing of the fruit they are disseminating beyond the local name, have never thought it worth their attention to inquire; secondly, because (alas! for human frailty) many nurserymen do not care whether they impose upon the public or not; the consideration with them is, to sell trees, and pocket the money of those who rely upon their honesty to sell them good fruit. But, I fear, the greater reason is, purchasers are not, in the main, sufficiently particular; they *will* buy where they can get the cheapest trees, and some of them think, if they get *grafted* trees, that will insure them good fruit.

From these and many other causes, the pomology of the West demands the attention which its importance merits. It is true, many of the leading fruits of the West are noticed in the works now published, but it is merely a notice. A Kentuckian opens Downing's great work on fruits, and reads the glowing descriptions of Northern apples; he thinks he has been cultivating nothing but worthless seedlings all his life; he sends to an Eastern nursery for trees; after years of labor and care, he reaps nothing but disappointment. Who will say they ever saw in Kentucky a Baldwin Apple equal to a Pryor's Red, or a Northern Spy as good as a Jennetting? Yet there are many persons in the West who *will* buy trees of itinerant agents of irresponsible Northern nurseries; and verily, they shall reap their reward.

In passing through the States of Ohio, Indiana, Illinois, Missouri, Kentucky, and Tennessee, during the fall, you will see in shops and fruit-seller's baskets, beautiful apples of every color. If you inquire the name, no one can tell, or they tell you that fine red apple is the Lady Finger. The apples are fine, you get some grafts, go home, and examine your book on fruits, and the Lady Finger is not a red apple, if, indeed, you find it at all. You think, at least, it is a good apple, and you propagate it as Lady Finger, and disseminate it among your friends. And thus it is, confusion becomes worse confounded. What Downing did for the fruits of New York, the New England States, New Jersey, and Pennsylvania, is just what we want, and must have, before we can take our proper stand as fruit growers, and before our excellent fruits can be properly appreciated.

THE APPLE-TREE BORER AND CURCULIO.

BY AN INDIANA SUBSCRIBER.

CULTIVATORS of fruit, perhaps more than any other class of husbandmen, are subject to more drawbacks and embarrassments than patience can often endure without grumbling, and they are always glad to hear a suggestion which may, "within the prospect of belief," be a remedy for any slight malady. That which has led me to this communication, and which does very materially affect the culture of one of our most staple fruits, is the "apple-tree borer," which, instead of decreasing with the advancement and demand of this important fruit, seems to evade even the most scrupulous ingenuity of those who give him battle. I have been thinking of a remedy which I am quite sanguine in the belief may be *effectual*, and once done *is* done, and needs no more anxiety; the simplicity of the thing, as well as its economy, will make it a good experiment for those who wish to try one. If I correctly understand the nature of this pest, it is a merged moth (not very unlike the one which infests the currant), which deposits her eggs under the coarse, dead bark of the tree at its collar, near the ground, and the larvæ, hatched from these eggs, when sufficiently developed, commence the boring. Instinct has perhaps instructed the moth that several advantages are secured in commencing so near the ground. One may be the softness and succulency of the wood at that point during the growing season; another, she provides for her young a place secure from storms, wind, and weather; or, the peculiar habits of the moth may be, to fly near the ground, and never ascend as high as the branches. Well, *whatever* it is, we know that *this* is the place that the insect commences to depredate, and, in viewing these peculiarities, I am of opinion that something like the following would be attended with fair results as a remedy :—

Prepare some boxes—say one foot or more in diameter, and eighteen or twenty inches high (without bottom)—to be placed around the foot of the tree; the ground should be removed, so as to allow it to rest within an inch, at least, of the roots (old trees, particularly). This box to be filled with ashes. I would not try this upon young trees whose fibres had not extended more than three or four feet from the trunk, though, even then, I doubt if it would be injudicious. The result of this, I think, would be plain and effectual. The borer certainly wouldn't bore into the box, and the strong alkali would prevent his undermining; nor do I think he would commence on top. Now, Mr. Horticulturist, if you can believe with me that the borer will give up this "post of *entré*" as impregnable (and I hope many will practically prove it this season) then I will be confirmed in my hope that the enemy is conquered; but if, as a last or final resort, the branches and trunk are resorted to, I fear we will have to hang our harps on the willows.

Mr. Longworth's remarks in regard to paving for the curculio, I deem well worthy of special attention. If by paving with brick we can once more enjoy the Green Gages, Washingtons, and Jeffersons, of ten years ago, then, I say, *pave*. One mustn't pave one, two, or three trees in a whole plum yard, and then condemn the system because it is not effectual, for any man of reasonable mind knows that the curculio has wings, and can communicate with the whole yard in this way. I think that it is herein that failures have occurred, and we hear it said: "'Tis no use to pave; I've tried it." Some persons say: "It's too expensive." I'll prove that it is not. Twelve feet around a common-sized tree, I think, would be sufficient, and it would take some six hundred and forty bricks of the usual size to do it, which, at $5 per thousand, would be $3 25, and say 75 cents for laying.

Cost of one tree, $4. Now, a reasonable crop of Green Gages, from a full-grown tree, would be about two bushels. These, at the Montreal market, I have sold at $8 per bushel; they would perhaps bring more at New York or Philadelphia. Well, there is $10 net profit, after paving and marketing, picking and packing! Who says it won't pay to pave?

Another subject I may speak of, which will perhaps suit some one, in regard to trees received from a nursery in a shrivelled and dry condition, which I have seen tried on President Wheeler's grounds, Burlington, Vt., with success. It is simply to place a barrel (without bottom) around the tree, and fill up with tar or sawdust; this, with a good mulching, will seldom fail to bring vitality to light, if it exists at all.

SPECIAL MANURES.

BY L. WYMAN, JR., WEST CAMBRIDGE, MASS.

In answer to a respected correspondent who writes from "York," and asks "which do you consider the best stimulant, for the pear-tree, of all the 'special' or 'manufactured manures' you have used?" and "please state the result of your experiment, &c.," I would simply reply that, having made quite a number of experiments with "special" manures, particularly with reference to their fertilizing qualities when applied to the pear-tree, I most unhesitatingly give the preference to Gould's Muriate of Lime, *over all others* which I have ever used.* As a stimulant, I consider it the *best* I ever applied, imparting more phosphate to the soil, in relation to the cost of the same, than any of the special manures, guano not excepted. Some four years since, I planted from the nursery about twenty young pear-trees, measuring from one and one-half inches to three and one-half inches in diameter. These trees were placed in a gravelly loam, good soil, and were well manured, with finely pulverized house manure, and a compost of street sweepings, &c. The soil and location considered good for the growth of the pear-tree. From some cause, these trees, although *well* planted and carefully attended, made scarcely any growth of wood for three years, not growing scions over three, and many of them not over two, inches in length. I tried an application of Gould's *Muriate* of Lime in the following manner:—

Removed the soil about the tree to near the roots, leaving them thinly covered with earth over them. Next applied, by measure, one quart of Gould's Muriate to the roots of each tree, covering a space of from two to three feet around; replaced the soil again, and *mulched* thinly. These trees received no water, or other treatment, for a year, and nearly all of them made a vigorous growth; in some of them, the last year (1856), scions are, by actual measurement, over two feet and one-half in length, and the scions healthy and strong. These trees are now in good, healthy condition, and will doubtless make a rapid growth the present season. The above trees can be seen by the curious, or those interested in the culture of the pear-tree. I have made other experiments with this fertilizer, and, in all cases, the same has given me the most perfect satisfaction. I can, from actual, careful experiment, recommend it as just the manure for the growth of

* I have used nearly all kinds of stimulants (usually denominated "special manures"), not omitting the numerous "phosphates," the "poudrettes," the "Lodi fertilizers," the "superphosphates," "guano, pure and unadulterated." I have given them all a fair trial, and, in my catalogue of "special favorites," I do not omit several astonishing "eggs" recently hatched, or pass by the theory of Liebig, or the universal "world renovator" of Mapes. I have found in them all, in a greater or less degree, a fertilizing promotive of the growth of plants to which they were offered. I suppose others have done the same.

young trees, particularly the pear. The component parts of Gould's Muriate are, by Dr. Jackson's analysis, as follows, viz :—

Carbonate of Lime	54.00
Chloride of Sodium (Salt)	14.40
Phosphate of Lime and some Oxide of Iron	6.50
Chloride of Calcium (Muriate of Lime)	2.70
Chloride of Magnesium (Muriate of Magnesia)	2.40
Ammonia	6.41
Organic Matter	4.59
Fine Sand	8.50
Loss	0.50
	100.00

Twenty per cent. of this compound is soluble in water.

It is shown, by the above analysis, that this fertilizer is a valuable manure, admirably adapted to siliceous soils, and to those which have been impoverished by long cropping.

THE FRUITS OF CAROLINA.

BY A. B., UNION, SOUTH CAROLINA.

THERE is no better region in the world, for the cultivation of fruits, than the middle and upper districts of South Carolina, and the southern portions of North Carolina. Apples, peaches, pears, plums, apricots, nectarines, and melons, grow in the greatest abundance, profusion, and of the highest excellence. But Columbia, and its immediate vicinity, is the paradise of fruits, flowers, and every species of shrubbery.

The system of culture adopted by northern cultivators differs in many respects from that suitable to this State. Mulching—a practice so universally recommended by writers upon the subject of fruit culture—has many disadvantages in this region. Owing to the more powerful effects of our sun, and the greater length of our summer, all species of insects are in greater abundance, and their ravages surpass anything known at the North. Millions upon millions of these pests of the flower garden and orchard, are brought into life by the heat long after the same species have entirely disappeared at the North. These secrete themselves under the tan bark or straw used for mulching, and there commit depredations on the young trees, safe in their retreats. A friend and neighbor who had adopted this system of mulching, informed me that a young apple-tree, one and one-half inches in diameter, had been completely destroyed by a caterpillar. He had made his way under the bark, and had actually *eaten out the whole of the wood for a space of three inches!* The tree presented no signs of decay. The bark was sound, and apparently healthy, but, on bending the tree slightly with the hand, it snapped off at the ground.

The finest apples are grown in the lower districts of North Carolina and the upper portions of this State. Union District is perhaps as favorable a locality for the culture of this fruit as any part of it or South Carolina.

The peach grows so luxuriantly, and bears such abundant crops without any attention, that it is regarded as a waste of time to cultivate it with care. Many new varieties have been originated, in this district, from seedlings accidentally growing in fence corners and waste places.

The *yellows* are unknown in this climate; but the borer is troublesome, and is on the increase, owing to the fact already stated, of the exuberance of insect life

in this climate. Peaches have not yet become a profitable market fruit. They are so abundant everywhere—growing so rapidly and frequently, becoming troublesome from their vigorous growth—that, even in our cities, the demand for them is very limited, although it is said that a citizen of Edgefield District, during the last season, realized $5,000 by shipping peaches to the New York market.

The commonly received dogma, that the apple does not furnish a good stock for the pear, has proved untrue in this locality. Many of the oldest pear-trees in the country are upon this stock, and they are still vigorous and fruitful. There is a tree now standing in this village about which the following tradition exists: A pear was grafted on a stock of the June apple, and grew rapidly and luxuriantly. In a few years it produced fruit, and the first crop was of June apples! Every crop since has been of pears. This fact is well authenticated. Governor Johnson, of this State, was so much struck with this singular freak of nature, that he examined the tree himself, and sent an account of the occurrence (over his own name) to the *Spirit of the Times*, then supposed to be the best paper for the publication of such items.

A remedy has been long sought to prevent peach-trees which have been allowed to form forks from splitting when overladen with fruit. It has at length been discovered. Take two of the smaller limbs growing on the sides next the fork, and twist them around each other, but not too tightly. Do this at the commencement of the growing season, so as to form a union between the two forks. These limbs will readily grow together, and form a solid branch of uniform thickness, extending from one of the branches of the fork to the other, which, when full-grown, renders it impossible for the tree to split. If the end of each limb is cut and adjusted to the other at the point of final contact, as in splice grafting, it will facilitate the union, and hasten the growth.

A beautiful and singularly-shaped tree may be grown by taking advantage of this principle. Plant in good soil two peach-trees—say two years old from the seed; let the trees be such as have not been trimmed or cut back. They will probably be from six to eight feet high, and free from side branches. Plant six feet apart, and twist together, so that the united limbs will form an arch—say four feet from the ground at its highest point. Upon the upper side of this arch, let all upright shoots grow—say eighteen inches or two feet apart, and pinch off all others. These upright shoots may then be budded with choice varieties, and permitted to mature their fruit. I have found this method very useful for testing seedlings. The sap being retarded by the wrapping or twisting of the trees, the growth is not so vigorous, and early fruiting is the consequence. If a shoot which has been budded for testing, prove worthless, cut it off, and its place will be soon supplied.

Pears are grown here mostly as standards, and mostly on free stocks. A few zealous amateurs have recently introduced them on quince stocks, but they have not yet been sufficiently tested. The great objection to peach culture is the uncertainty of the crop. Our springs are so early and so variable, that the fruit is often killed by spring frosts. Once in four years may be assumed as an average of the abundant seasons.

Cherries *will not succeed* here. The common morello grows and bears well, but the finer varieties (the Bigarreaus and Dukes) it is a waste of time to plant. The cause is unknown. Cherry-trees, in my grounds (seven years old from the bud), have not yet fruited, and much older trees in the vicinity are in the same condition. There is always a profusion of bloom in the spring, and the tree gives promise of an abundant harvest, but it is all a "take in." The fruit never sets.

The "curculio" commits greater ravages here than in your colder climate.

Salt, chickens, swine, and most of the remedies recommended for this pest, are all nonsense. The only remedy is that of shaking the trees, and catching them in sheets; but this is so troublesome, in large orchards, that it is really no remedy at all.

The olive grows in great luxuriance in the lower portions of the State. Oranges and lemons are grown, in the open air, in many places on the sea-board.

I have endeavored to give you thus a brief account of our fruits. I believe that most fruits grown here are superior in flavor to those grown in the North. Our summer's sun ripens everything, but it would afford me the greatest pleasure if you or your readers could procure a good basket of our early summer peaches; they are so far superior to those grown with you, that you would scarcely recognize the fruit.

SHRUBS WITH ORNAMENTAL BERRIES.—NO. 1.

BY THOMAS MEEHAN, GERMANTOWN, PENNSYLVANIA.

THERE is quite a number of shrubs that are chiefly valuable for their ornamental fruit; many, in fact, rest their whole claim to our attention on their peculiar beauty in this respect. I have thought that a list of such, with brief descriptions of their habits, might be interesting to some of your readers.

1. *Amelanchier botryapium.* The June Berry, or Indian Cherry.—This is rather a small tree than a shrub. In the month of June, it is covered with a profusion of scarlet fruit, about the size of a small cherry. It belongs to the apple family of plants, and is as easily raised from seed, and in the same manner, as the common apple. It thrives best in a deep, rich loam, and is best adapted to an open and airy situation.

2. *Aralia spinosa.* Angelica Tree, or Club of Hercules.—Also a large, strong-growing shrub. It has quite a peculiar appearance. The stem is very thick, usually has but few branches, and is completely beset with short, thick spines. The flowers are borne from the apex of these shoots in very large panicles, succeeded by blue berries, about the size of small peas, ripening in October. It is not a plant for the most highly kept portions of the lawn. Its character better adapts it to wilder places. It increases somewhat by suckers, though it does not spread very rapidly unless the roots are cut. Every small piece will grow. The best place for it is in an unfrequented part of the lawn, where a small clump of half a dozen, left to itself, will present a very interesting feature. It seems to prefer dry, poor, stony soils.

3. *Arbutus unedo.* The Strawberry-Tree.—Whoever has travelled in the temperate parts of Europe, is familiar with this shrub, as it is considered indispensable in every garden. It is remarkable that it should be a native only of two places, and these widely distant—the Cape of Good Hope and Ireland. South of Philadelphia it is hardy, but does not grow with its European luxuriance. It is an evergreen, and the fruit, as its name imports, is of the size, color, and shape, of a small strawberry, which the tree ripens in succession most of the year.

4. *Benzoin odoriferum,* or *Laurus benzoin.* The Spice Bush.—Well-known under its common name to the readers of Wilson's popular "Lines to a Blue Bird." It is a shrub seldom exceeding ten feet high, sending up numerous shoots from its base, and bearing, in July and August, its rich, scarlet fruit in great abundance. The fruit has a highly aromatic taste, and is eagerly sought after by birds, so that they soon disappear. On the whole, there are few more desirable shrubs than this. Its favorite place is in moist, rich, and shaded soils, though it will do

pretty well in any rich and deep soil. The seeds must be either sown as soon as they are ripe, or kept in slightly moist moss or soil until they can be. If they are kept dry, they lose their vegetative power, though good to all appearances, except that they have a slightly yellowish tinge.

5. *Berberis.* The Berberry.—Nearly all the evergreen kinds (*Mahonia* section) have handsome blue berries. The deciduous species have scarlet fruit; of the latter, *B. vulgaris* (European Berberry) and *B. canadensis* (American) are best known, and should be in every garden. The fruit ripens in October, and will remain on a great part of winter. The American and European very much resemble each other; the former does not grow so strong, has a more spreading habit, the fruit rounder, and of a brighter scarlet than the latter. They grow readily from cuttings, and are not partial to any particular soil. The evergreen, *Mahonia aquifolia*, is one of our hardiest evergreen shrubs. It does not exceed four feet in height, but has a very bushy tendency. The young leaves are very green and glossy, the yellow flowers very fragrant, and the racemes of purple berries (ripe in September) peculiarly pretty. It thrives best in a rich, sandy soil, and is readily propagated by either seeds or offsets. The former are not easily procured here, on account of the recent introduction of the plant, so that the species is not so common in gardens as it will be.

6. *Bumelia lycioides.*—This plant is very scarce, and is, I believe, confined to a very small district in its native place (South Carolina). It is quite hardy in Philadelphia, where it is very nearly evergreen, and would no doubt be able to endure the winters of more northern States. In the fall, it is covered with black berries as large as small cherries, of a beautiful glossy hue. One great advantage this shrub possesses over others is, that it seems to prefer a dense, shady place, where few other things will thrive. There are several other species indigenous to the southern States, but they are not, I think, in cultivation. The seeds grow very easily.

7. *Callicarpa Americana.* French Mulberry.—This is a small shrub. The small purple flowers are not particularly handsome, but the succeeding spikes of small, purple, edible fruit, are very pretty. It is very nearly allied to the *Vitex agnus castus*, or "Chaste Tree." It grows naturally, as far north as Virginia, and, I think, would prove a desirable hardy shrub for higher latitudes.

8. *Caprifolium sempervirens* (the Red) and *C. flavum* (the Yellow Trumpet Honeysuckles) are as prominent amongst handsome berried plants as they are amongst plants with beautiful foliage or inflorescence. Both of them bear fruit very freely in this region, in the shape of large clusters of light, scarlet berries, making a much handsomer show, when in fruit, than many other plants much more sought after do when in flower. The seeds grow very readily, and if attention were given to raising them that way, it is more than probable new varieties would be originated, as they show a tendency to change. The usual way of raising them is by either layers or cuttings.

9. *Cerasus caroliniensis* (the Carolinian) and *C. lusitanica* (the Portugal Laurels) are evergreen shrubs of the first order for the beauty of their berries. They are not hardy north of Philadelphia. They are very easily raised, either by seeds or cuttings, and grow to perfection only in a deep, rich loam.

10. *Chionanthus Virginicus.* White Fringe Tree.—A shrub of the largest size, when full-grown, but it is one of comparatively slow progress, and keeps blooming as it grows. The foliage has something the appearance of the *Magnolia glauca*, and the fruit ripens in September. Each berry is about the size of an olive, and of deep, shining, purple color. Many trees do not bear, and others only imperfectly, in consequence of their frequently having imperfect flowers, for

though it is classed, by botanists of the Linnæan school, with the perfect flowering plants, it is, in reality, polygamous, as much so as the Ash, to which it is very closely allied, and on which it may readily be grafted. The barren plants attain the largest size, and make the most beautiful objects when in bloom; but all who wish to enjoy the singular beauty of the large clusters of grape-like fruit, should be careful to propagate either by layers or by grafting from the best bearing varieties; for, although there is a tendency in all polygamous plants to change their sexual characters according to circumstances, yet there is, at the same time, a strong disposition in all plants to retain any peculiarity of character that may have marked the individual it was propagated from. The White Fringe thrives well in any rich garden soil, and, if rather moist than otherwise, grows with greater advantage. The seeds are best sown as soon as ripe; if it is not possible to do so, they should be put in a box of sandy soil, and set out to freeze through the winter, and sown in the spring. It is nearly impossible to get these seeds to grow after once getting dry, unless they are subjected to the action of frost.

11. *Colutea arborescens.* Bladder Senna.—This is a very handsome shrub, and though a native of Southern Europe, is perfectly hardy in this country. It grows about five or six feet high, and is chiefly desirable for its pretty orange-colored, pea-shaped blossoms, which are produced throughout the summer. These are succeeded by very curious, bladdery fruit, which, if they may not be called handsome, are, at least, highly interesting. The plant will do well in any soil or situation, but is seen in perfection only in dry, rich soils, and well exposed to the sun. It is propagated from seeds sown in fall or spring, which grow very readily.

12. *Cornus.* The Dogwood.—Though one kind (*C. florida*) is esteemed for its handsome floral leaves, and one or two others for peculiarities in the color of their wood or foliage, the whole genus may be said to derive their chief value in the decoration for lawns and pleasure grounds, from their beautiful fruit. Two well-known kinds have white fruit—*Cornus alba*, a dwarf shrub, with large clusters, and *C. paniculata*, with smaller ones. The last grows about five feet high, and does well only in very rich soil, and a situation fully exposed. *C. alternifolia* is a large shrub, with purple berries; *C. stricta* and *C. suesica*, pale blue; *C. florida*, bright red. But the handsomest of all, I think, is *C. mas*, or *mascula*, as it is sometimes called. When full-grown and full-fruited, I doubt whether there is any plant superior to it in beauty. Its common name is Cornelian Cherry, and its fine large fruit, of a transparent coral, is well described by its name. It is a shrub of the largest size, and, to be grown in perfection, should have a dry, rich garden soil, and a full exposure. The best way of raising all the species, is from seed sown as soon as ripe, or treated as recommended for *Chionanthus*. They can be raised from cuttings by experienced hands, but they do not root as readily as many other things. They succeed well by layers.

13. *Cotoneaster.*—A genus of, for the most part, evergreen shrubs, all of which have very handsome scarlet-red or brown fruit. The best known is *C. microphylla*, which, though, I believe, perfectly hardy in most of our northern States, when growing in a north aspect, are liable to be destroyed by exposure to the winter's sun. It is said that, in some countries, in its abhorrence of sun-light, it always attempts to grow to the north, but I am not able to say whether it retains that disposition here. It is fond of a dry, stony soil; is propagated the most readily by layers. Some other species are becoming better known (as *C. marginata*, *C. dentata*, &c.); not very marked in their differences from the first, but may be, perhaps, better adapted to our climate on trial. [These beautiful plants we have found difficult to preserve for many years in succession, though they thrive for one or two. The microphylla is often represented in the best engravings as covering

the walls of a house with its delicate leaves and spray. Wherever it is hardy it is most desirable.—ED.]

14. *Cratægus.* The Hawthorns.—These are all well known. The two handsomest for their fruit are, I think, *C. cordata* (the Washington Thorn) and *C. oxyacantha* (the English Hawthorn.) The *C. coccinea* has large, handsome fruit, of a deep color, but not produced in such profusion as in the other two. *C. cordata* bears its fruit nearly in clusters; they are but of medium size. *C. oxyacantha* does not bear them in such large clusters; indeed, they are rather isolated, usually, but they completely cover the bush when well grown. They remain on long after the leaves have fallen, and serve to lessen the period between winter and spring more than any other plant. They are raised from seeds, which, for the most part, lie two years in the ground before growing. *Cratægus pyracantha*, or Evergreen Thorn, must not be forgotten. Mr. Buist thus writes of it: "There is not a more beautiful plant during our autumn and winter months, neither is there a more neglected one. Thickly studded with its beautiful coral berries, it forms a very attractive bush or pillar." It is very easy to raise from layers as well as by seeds sown as soon as ripe, or in spring. They do not take so long to germinate as other species of *Cratægus.*

15. *Dirca palustris.* Leather Wood.—This is a small shrub, belonging to the *Daphne* family of plants, seldom exceeding two feet high. It is a peculiar-looking plant, growing in the shape of a round, formal, stiff head, when fully exposed, and bearing, in the summer, a quantity of small berries, of a pale salmon color. It will grow well in a dry soil, but bears its berries only in a moist situation. It takes its common name from the toughness of its young wood, which may be knotted up like twine without breaking.

16. *Elæagnus hortensis.*—This beautiful shrub is supposed to be tender. In this latitude, it is perfectly hardy, and, in the late fall months, produces its beautiful, shining, black berries quite abundantly, making a pretty contrast with its silvered foliage. It is rather a full-sized shrub, and grows well in any dry garden soil, and is increased either by seeds or layers. There are many other species of *Elæagnus*, but I have never seen them bear much fruit, nor do I think many others have, as an old writer, speaking of *E. crispa*, says: "A very vigorous shrub, which brings forth long branches, used to nail up and cover the walls."

17. *Euonymus.* Spindle Trees.—Well-known plants all over the world, and much valued; *E. Europæus* is the commonest. The color of the fruit varies from seed. They are usually of a pink color, but occasionally are of a bright scarlet. There is another variety quite white. The *E. atropurpurea* has purplish foliage, much larger than the last. The fruit very much resembles, indeed, can only be distinguished by the footstalks, or pedicels, being pink like the fruit; while, in the *E. Europæus*, they are green. Some consider it only a permanent variety of the *E. Europæus*. *E. Americanus* is a low bush; the leaves are very nearly evergreen, and the fruit a brilliant scarlet—so much so, as to have earned for the plant the name of "Burning Bush." They are all very easily propagated by seeds sown either in the fall or spring, or by cuttings of the roots. They are very accommodating in their desires, being equally well satisfied with dry or moist soils, shaded or exposed situations. [Mr. Meehan has done a service by collecting and describing so desirable a class of plants. The continuation shall be given in our next.—ED.]

PROTECTING FRUIT ON THE PRAIRIES.

BY ELI NICHOLS, NEW CASTLE, COSHOCTON COUNTY, OHIO.

Suppose two farmers settle in the open, bleak prairies of the West. Each plants an orchard. One in the broad plain, exposed to sun and wind; the other surrounds his lot with a double row of Norway fir, pines, or other evergreens, and then plants his fruit-trees alternately with the black spruce, or some similar tree. Which, at the end of thirty years, would be the most thrifty, and which would have produced the most regularly? The protected orchard probably would. In support of this opinion, I offer: First. Orchards, otherwise as well situated in the prairie country, but protected by woods, grow and bear better than those in the open prairie. Second. Fruit-trees, in a wooded country, bear and flourish better than those in a prairie country, other things being equal. Third. Great and sudden changes of temperature are injurious to fruit-trees. Those who have travelled in winter, in prairie countries, know the temperature is much milder and more equable in the woods than in the open prairies. The same is experienced where there are large, open fields in countries originally timbered. Fourth. The old men in timbered countries almost all recollect, that the first orchards, when the openings were small, were more fruitful and healthy than now, when cultivation has destroyed most of the forests. Fifthly. I set out a number of evergreens two years ago. Part of these were well protected with forest timber—part were not. The first were scarcely touched by the past or present winter, while the unprotected were all scathed, and some killed. Fruit-trees, especially peach-trees, were much injured by last winter; those well protected, scarcely at all. There was abundant evidence of this in my orchards.

That evergreens would be better than other timber, I do not know. My recollection of the pine woods of Virginia is, that they are warmer than other woods in cold, windy weather. But in Ohio, where I have spent most of my life, evergreens are scarce, and I have never witnessed their influence on fruit-trees. Differing as they do in their growth and habits, I have supposed they would *rob* fruit-trees less than other forest-trees would. That is, that each kind of tree might find its own proper nourishment with little injury to the other. The great object of writing this is, that I may possibly induce you, Mr. Editor, or some of your numerous readers, to communicate some facts, from good authority or personal knowledge, showing the effect which evergreens and fruit-trees have on each other. So sanguine am I, that already I have some growing. But many years must elapse before mine will tell the tale.

The experiment should be a fair one. Young trees set in near proximity to old ones, are always injured. The experiment, to be fair, should be where trees of not greatly dissimilar ages have grown to maturity together. In the old yards and grounds of the Eastern States, and of England, I should think this had often occurred. Who will let us know?

By my theory, the apple, pear, and peach, love company. They seem to me to have been in their natural *habitat*, much like our plum, crab-apple, hawthorn, &c. The plum and crab-apple, if left by themselves, where woods are cleared into fields, usually soon perish, but, if left sparsely interspersed with other trees, they flourish greatly, and bear abundantly. Even the oak seems to love association. Where it grows singly, it sends out its long, horizontal limbs, as if in search of that shade and protection, which no kind neighbor affords it. Nature starts all her forests in thickets, and thins them out as room is needed. How cruel, then, is it in man

to set out a pear-tree, and keep every protecting shoot cut, or rubbed off five to eight feet high, and then how foolish to grumble that it died. A thorough study of this matter, connected with proper experiments, might develop important results. In the long run, the protecting trees might be nearly as valuable as the fruit-trees. In the prairies, I believe something of this kind will be found indispensable. Where the forests are chiefly destroyed, it is almost equally necessary. Especially is this true of the pear. Dodridge, in his *Notes on Western Virginia*, says: "Pear blight was unknown, while the openings were small." This is true, also, of Ohio. In the prairies, it is almost coeval with the first planting. In England, and wherever the sun is less powerful, and the climate more equable, such protection may be unnecessary.

A CHAT FROM KENTUCKY.

BY W. A. TOWLES, HENDERSON, KENTUCKY.

I INCLOSE a stem, with leaves attached, of the vine I mentioned in my note. Since I wrote you, I believe I have found out the vine. In Volume VI., page 141, of the *Horticulturist*, Mr. Downing speaks of a vine in the Bartram Garden which I suspect to be the same thing. It is the Golden Trumpet flower, Bignonia capriolata. There is not, in the place referred to, a satisfactory description of that vine, and I may, very probably, be mistaken as to its identity. However, you can tell by the sample I sent. [It is Bignonia capriolata.—ED.]

I do not know what parts of Kentucky to recommend to you to visit as most beautiful in park scenery; that portion of the State where the blue grass grows most luxuriantly, is certainly as lovely and pleasing to the eye as could be desired. The total want of undergrowth gives the whole face of the country a park-like appearance. The cause of this want of undergrowth is, that, originally, it was a dense cane-brake, and I have noticed wherever the cane has been eaten out, or killed out, nothing seems to take its place for years. In the mountainous portions of the State I have never been, but, I doubt not, the same beautiful views which burst upon the eyes of the early pioneers, are to be seen still.

Of this portion of Kentucky, known as the Green River country, I can speak more knowingly. I think, as a general thing, we have trees of as large and beautiful growth as can be found this side the Rocky Mountains. Our magnificent poplars (known as tulip-trees) are most aptly described by Mr. Downing, in his *Landscape Gardening*, but, when he comes to speak of the Sweet Gum as only attaining a height of thirty-five or forty feet, he never conceived the injustice he did the tree. I have frequently seen them in the rich Mississippi bottoms, six feet in diameter, and fully one hundred feet high; and many other of our most magnificent forest-trees are, unfortunately, only spoken of as they appear in a more northern climate.

That portion of the State called the Barrens, is worth seeing. When the State was first settled, there was little or no timber upon it, but now, most of it is covered with timber of small size, and generally of the oak species.

I should like to show you our river bottoms, the most extensive on the Ohio, where you can see the cotton woods and sycamores in all their pride of place, the finest specimen of black walnut, hickory, pecan, honey locust, hackberry, and box-elder, the eye of man ever rested upon; and last, but not least, my pet vine, hanging in beautiful drapery from the boughs of the monarchs of the forest. I could also show you a region of country (about ten thousand acres in extent) where the beaver once flourished, built their dams, and sported at pleasure, before

the white men invaded their haunts. In those ponds, formed by the beaver, you can see the cypress in all its glory, and, on the ridges close by, you see the finest specimens of oak to be found anywhere.

In pomology I hope to interest you much, not that we have anything to boast of, but, on the contrary, we wish you to lend a helping hand, to lift us out of our obscurity. We want a Western pomologist; all the works now written, so far as I know, are by Eastern men, who were wholly unacquainted with our fruits. It would be worth a pomologist's attention to investigate this subject, and write a book upon the "fruits and fruit-trees of Ohio, Indiana, Illinois, Missouri, Kentucky, and Tennessee." Such a work is greatly needed, and I hope the day is not far off when we shall be granted so great a boon. Your correspondent from Trenton, living within eighty miles of this place, mentions several varieties of apples I never heard of—at least, not by the names he calls them.

[Hooper's Western Fruit Book, published at Cincinnati this year, might aid our correspondent. We hope to examine this work soon.—ED.]

A NEW FIBRE.

MR. JACOB STAUFFER, of Mount Joy, Penn., calls our attention to a very strong native fibrous substance in the following communication, which we regret to be obliged to condense. The article sent is not unknown to us, and surely presents claims for examination and trial:—

"I inclose you a few fibres of the dry stalks of the Œnothera biennis, stripped off this morning after having stood the exposure and vicissitudes of our long and severe winter. You will find they are superior to hemp, and, I doubt not, fully equal to the 'China Grass' (*Boehmeria nivea*).

"DR. A. Gray says, respecting the name of our Œnothera biennis, L., that it is from οἶνος, *wine*, and θήρα, *a chase;* that the application is uncertain; Loudon informs us 'that the roots of this plant, eaten after meals, are incentives to wine-drinking, as olives are.' He also considers it ornamental, and assigns the reason why it is called evening primrose, because the flower usually opens between six and seven o'clock in the evening.

"There are four varieties—the muricata, grandiflora, parvifolia, and cruciata—one or the other common everywhere. I will simply say that it is a biennial, indigenous plant, growing in fields and along fences, from Canada to the Carolinas. It is from two to five feet high, with a rough stem, alternate, ovate-lanceolate leaves, and fine yellow flowers, which make their appearance, in succession, from June till August or September, the stalk extending upwards during the flowering season, thus producing the long spikes in fruit.

"It is worthy of notice for its medicinal properties. Schoepf states that it is esteemed useful as a vulnerary; hence it is called 'heal all' by some botanical doctors, a name properly belonging to the Brunella *Tourn*, Prunella L. (Self-heal).

"My object is to introduce our somewhat abused 'evening primrose' to the notice of the public. I shall send specimens, with some remarks, to the Hon. Chas. Mason, with the hope that our savans will condescend to notice this neglected plant. One thing is certain, I can manufacture a rope out of it that will be able to 'sustain its reputation,' if not quite of the dignity of 'China Grass' or 'Sisal Hemp.' Very truly yours, JACOB STAUFFER."

THE LATE WINTER.

BY WILLIAM BACON, RICHMOND, MASS.

APRIL, 1857, will be remembered, in this section, as the month of snow. On the 1st, we had a moderate fall; on the 6th, and again on the 14th and 15th. But the great storm of the season was on the 20th and 21st, when the burden borne by the evergreens bent them almost perpendicularly. Many old apple-trees were broken down.

A thaw commenced on the afternoon of the 21st, when the burden of snow on branches of deciduous trees, and the south and west sides of evergreens, fell off; yet, on the northeast side of trees exposed to the wind, a novel feature was presented on the morning of the 22d—tall columns of snow extending one-third around their trunk, and terminating in a sharp edge to the northeast (frozen like ice), and extending upward, following the taper of the trunk and leading branches, sometimes to the height of forty feet. We measured one of these untimely appendages at about four feet from the ground, and found the horizontal depth of this columnar mass of snow encased in ice, to be ten inches, this always varying, however, to the size of the tree.

The actual quantity of snow on the ground, on the morning of the 22d, was fifteen inches. When we take into account the amount of moisture on the surface to help melt the snow, and the moist condition of the snow in falling, it is but a fair estimate to suppose the quantity of snow that fell in this storm was thirty inches, or two and one-half feet, which makes it decidedly the heaviest storm ever known here at this season of the year. The thermometer, during the storm, ranged, on the 20th, 32° to 34°; on the 21st, it rose to 38°, but fell at night to 30°. The wind was northeast most of the time; a stiff breeze, and, in the night, very high.

The winter has been marked by some intensely cold terms. In each of the months (December, January, February, and March), the mercury was below zero. The coldest term was in January, when the mercury was, in one instance, 23° below, and remained below through the day. The next morning, noted 20° below zero; yet our peach and other fruit buds are apparently uninjured. The new wood of last year's growth stands firm and good, thus giving new evidence that the descent of the mercury to 17° below zero does *not kill* buds.

Our experience with mice, the last winter, has been to us truly novel. We had apple-trees standing in grass land, and, within a few feet of them, trees standing in stubble, stocked a year ago. These latter were effectually protected, as I supposed, by putting piles of thoroughly rotted manure around them, well elevated at the trunk of the trees. When the frost came out this spring, we went to level the manure, and were surprised and vexed to find several fatally girdled, the work of destruction being carried from near the surface of the manure into the roots. In two or three instances, we found mice nests in the manure, the material having been brought from a distance. At one tree, we found the mischief-dealing population, which we despatched with right good will. This experience brings us to the conclusion, that mounds of well-rotted manure do not fully protect, especially when mice are very plenty or very hungry, or very much bent on mischief. Not one of the trees on grass land was molested, though no protection was given.

BEGONIA ZANTHINA.

Yellow-Flowered Begonia.

For a long time, we had only Begonias with white or red flowers, although many different species of this valuable genus were discovered. B. cinnabarina was an approach to the zanthina, but even this is shaded with the red which prevails, in a greater or less degree, in the flowers or leaves, and stalks, of all the genus.

Few plants have a greater claim on our cultivators than the Begonias, and we hope to see the zanthina generally introduced.

RAISING SEEDLING POTATOES.

BY C. E. GOODRICH, UTICA, N. Y.

Nearly every species of vegetable is changed, and usually improved, when transplanted from its native wilds into cultivated grounds.

1*st.* The *Perennial* gains in size of fruit or seed, but usually not in quality. This improvement is often at the expense of hardiness, its more rapid growth exposing it to atmospheric changes at midsummer, as well as protracting its growth often into the cold damps of autumn.

2*d.* The *Annual* and *Biennial*, on being reproduced in cultivated grounds, is altered in quality, as is seen in most of our cultivated grains, roots, and flowers, the most of which may be traced to wild varieties of inferior value.

3*d.* The *Perennial Wildling*, on being reproduced in favorable circumstances, changes and often improves, as in the case of the most of our fruits, roots, and flowers, which are likewise traceable to wild originals.

4*th.* The ordinary *Annual* and *Biennial*, on being frequently reproduced and wisely cultivated, acquires a stereotyped character. (1). In quality, as in the case of our common grains, melons, tomatoes, &c., which, under similar circumstances, show little change in quality from year to year. (2). In trueness to sort. The most of our grains, roots, and flowers, have been so long cultivated in circumstances of the highest culture, that they do not, when cultivated alone, sprout into new varieties.

5*th.* The cultivated *Perennial*, on being reproduced, does not exhibit this stereotyped adherence to sort, but sprouts into still new varieties, often in a retrograde course. Thus, the Swaar Apple, Early York Peach, Virgalieu Pear, and the finest varieties of tulips, &c., rarely, if ever, reproduce themselves.

6*th.* The *Potato*, however, differs from all other perennials with which I am experimentally acquainted; first, in the fact that quite frequently it reproduces itself almost exactly; and secondly, that it proportionately produces a larger number of good, new varieties. This last result, however, is not true of every source from which new varieties are sought, a family of new seedlings, consisting of four or five hundred varieties, sometimes failing to give a single valuable sort.

These things being premised, I propose to make some observations on the difficulties encountered in endeavors to improve the potato by reproduction.

In the reproduction of new varieties of potatoes, we take the seed balls of some existing variety, which we call the *base*.

The important traits included in a valuable variety of potatoes, are especially the following:—

1. *Good shape.* The Western Red, Oregon, and Wild Peruvian, are good bases whence to derive shapely seedlings. The Rough Purple Chili, the New Jersey Purple, or Black Yam, the Mountain June, and Wild Bogota, are bad bases. The Chili and Mountain June, though affording but few good shapes, produce those which usually remain permanent. But the Yam and Bogota Seedlings, though exhibiting numerous fine shapes the first year, are liable to degenerate the second and third years, so that, in the end, nearly all are, in this respect, worthless.

2. *White flesh.* The Western Red (the first generation) gives seedlings which are nearly all yellow flesh. From one of that generation that had white flesh, I raised a large family of seedlings that were nearly all white flesh. The Rough Purple Chili also affords seedlings which are nearly all white flesh. The Black or Purple Yam, having very purple flesh, produces very few seedlings that have white flesh the first year, and those few are liable, subsequently, to degenerate into slight shades of purple. The seedlings of the Oregon and Wild Peruvian are very largely white flesh. On the contrary, the Mountain June, though exhibiting very fine white flesh, gives seedlings which are nearly all yellow flesh. Where the parent exhibits no shade of purple, the first year settles the color of the flesh of its seedlings permanently.

3. *Hardiness.* The Rough Purple Chili is a very strong base, and leaves little to be desired. The Black Yam is but little inferior in strength. The Western Red is next in vigor, and in its second generation gives many strong seedlings. The Oregon and Wild Peruvian are rather feeble bases. The Mountain June, that splendid old early sort, has now for many years been very liable to disease. In strict accordance with this fact, its seedlings are almost all weak, and, notwithstanding its fine shape, are very unshapely, as I have noticed under No. 1 above. There is a strong proof of a law, long known to hold true of fine fruits, that improvement in one direction of successive reproduction is limited, and that we shall frequently find an advantage in going back to the comparative wildling as a base on which to improve. The first year of the life of a seedling, especially if it be one of sudden changes, or hot, damp intensities, almost always settles the question of its health, in the experience of the careful cultivator.

4. *Freedom of growth.* The Western Red has long been known to exhibit, on an occasional hill, a dwarfed look. It begins a little before midsummer. Such hills cease growing, the lower leaves dry up, the tubers set, and the whole plant ripens prematurely. On digging, the tubers are found to be sound, few, small. The cause of this dwarfing is not obvious. Many seedlings of this variety, even in the second generation, and many seedlings of the Oregon, Bogota, and Wild Peruvian, exhibit the same tendency. Some new varieties exhibit it on almost every hill. Other new varieties, of high excellence otherwise, are occasionally deformed by it. One thing is, perhaps, fully settled, viz: those families of seedlings that were originated in a very dry year, and that were, when young, subjected to successive dry years, are sure to exhibit this liability largely. A variety that has shown no indications of it for the first four years, may be considered safe. This tendency has been the greatest discouragement I have ever encountered in the culture of seedlings. A seedling of the Wild Bogota, of which one hill, in the second year of its growth (1853), yielded thirteen pounds of tubers, and one hundred and forty balls, failed from this cause in every hill in 1854, both here and in Virginia, whither I have sent it.

5. *Resistance of dry weather.* Closely associated with the foregoing evil, and yet quite distinct from it, is the inability of some varieties to bear dry weather. In a damp season, like 1855, they yield largely; in a dry one, like 1856, very

lightly. Some of the seedlings of the Oregon and Wild Peruvian are of this character. Other and more valuable sorts, as the Early Pink Eyes, Mountain Junes, and Carters, among the old sorts, and the Mountain June, Pink Eye, Garnet Chili, and Black Diamond, with many others of my new seedlings, are capable of retaining their vitality through a pretty long drought at midsummer, and then recovering and completing the growth of their tubers on the occurrence of sufficient rains. It is true, that such late growth is often unfavorable to the fine quality of potatoes for the table, as was painfully shown all over our country in 1853 and 1856; yet, in itself, as a sign of strong vitality, it is a most desirable quality. There is, of course, a degree to which dry weather may exist which nothing can resist. Such was the summer of 1854. When the rains of September 8th came, there was no considerable power of resuscitation left in any variety of potatoes.

6. *Fine flavor.* Most varieties of seedling potatoes, after their fourth year, will be found eatable at least in a tolerable degree when properly ripened. Indeed, I do not trouble myself on this point. If the other qualities contemplated in this paper are secured, eatable qualities are pretty sure to be developed in due time. It is true, however, from causes which are to me inexplicable, that some potatoes, like some apples, even with the same degree of health and maturity, are superior to others for the table. The Carter and Winter Pink Eye are standing illustrations of this fact. In partial explanation of this fact, it may be remarked that most varieties increase in edible qualities with age.

7. *Early maturity.* Potatoes, in order to be healthful, should usually mature by the close of the ordinary season of growth. The potato, as a mountain tropical plant, is capable of growing in cooler weather than any other tropical except the Nasturtian. When hardy varieties, on the approach of the cold nights and foggy mornings of autumn, are in a state of rapid growth, and are actually extending their branches and forming new leaves, their growth is never healthful. This is the reason why very late planted crops and sorts, that at least are of late maturity, are less healthful than earlier sorts. The same thing is true of corn, melons, tomatoes, and even oats, and many other things. But when, on the approach of the weather just described, the potato exhibits vines of finished growth, though in a green condition, the tubers will continue to increase until the vines are entirely dry, and will mature healthfully. The reason is obvious. The elaborated material, stored up in the vine ready to be absorbed, was prepared in good weather. Beyond this, it may be observed that if potatoes, not eminently hardy, are cultivated in uncongenial seasons (such as exhibit severe and sudden changes, or hot and damp intensities), such potatoes will be likely to be diseased. First. If such adverse weather came very early—say late in June and early in July—before even early sorts have gained the full expansion of their foliage, then such early sorts will exhibit diseased foliage, and probably diseased tubers also. Meanwhile, however, late varieties, which are far from having made the utmost expansion of their foliage, will escape, or, at most, will suffer but a little injury of foliage. Secondly. If, on the other hand, such morbid weather occur late in the season—say in the month of August—the early sorts being already nearly ripe, will escape disease, while the late ones will quite certainly be injured, if not very hardy sorts. So, also, as already noticed, any sort not exceedingly hardy, is liable to disease in the cool, damp weather of late autumn. These remarks will explain what was considered an inexplicable fact in the early history of potato disease, viz: that in some years early sorts, and in others late sorts, were most exposed to disease.

There are many other considerations of importance in the culture of seedling

potatoes, but the seven foregoing are perhaps the most important. The reader will by this time justly conclude, that the origination of one, much more of many, varieties of valuable new potatoes, is no easy thing. My present impression is, that it could be done with much more facility in Peru, Chili, or Oregon, than here, the great uniformity of the climate there being favorable. For this very reason, however, such sorts would probably not be the best adapted to our unstable climate. From the beginning of 1849 to the close of 1854, I originated about 5,400 varieties. Of these, a few hundred were lost by frost in the winter. But of the multitude that remain, I have now but thirty-three sorts left, many of which I shall doubtless reject in a year or two. The 3,000 new sorts originated in 1855 and 1856, promise better; but even among them, the proportion of truly valuable ones will in the end doubtless be small.

The wise poulterer will not count his chickens in the egg, nor when first nestling under the wing of their mother. He watches their passage through cold alternations, and dry and wet intensities of weather. So the cultivator of seedling potatoes feels little assurance at the end of the first, second, or even the third year of his culture. He waits the results of the fourth or fifth year before he feels assured of the permanence of good qualities which may have been exhibited the first year.

Many fine seedlings which promised exceedingly fair when I gave them out in their second and third years, have subsequently painfully disappointed both me and the receivers, in some one or more of the seven preceding qualities. This accounts for the fact that so very few new varieties of potatoes secure an enduring reputation compared with the many that have been originated within a few years past. My friend, Dr. H. W., informed me, that out of a large family of seedlings originated by himself a few years ago, but one highly valuable sort had been obtained.

VERBENA SOUVENIR OF JANE C. HANSON.

This beautiful variety was obtained by Mr. T. E. Croft, of Philadelphia, and is, for form, size, and color, one of the best whites now grown. Mr. Croft has been quite successful in raising varieties of this bedding plant.

The Verbena now offers almost every variety of color, and hues for every taste. Taking into consideration the lengthened period of its bloom, it is unrivalled by any other plant; its increasing cultivation is the best evidence of its great popularity. To grow it with entire success, it should have a free exposure to the sun.

REVIEW.

The Rural Poetry of the English Language, illustrating the Seasons and Months of the Year, their Changes, Employments, Lessons, and Pleasures, topically paragraphed, with a complete Index. By JAMES WILLIAM JENKS, M. A. Boston: Jewett & Co.

THIS very superb volume of 540 pages of double columns, has been on our table for some weeks, and deserves to have had an earlier notice at our hands, because it is adapted to the readers and workers who love the country and country employments. Professor Jenks has undoubtedly employed much time and taste in the collection of the rarest gems of English poetry, and he has been most successful in getting publishers to execute his design well. Independently of the poetry, the dedication is addressed to the proper persons. It is as follows:—

TO

THE HON. MARSHALL PINCKNEY WILDER,

PRESIDENT OF THE UNITED STATES AGRICULTURAL SOCIETY,

AND

PRESIDENT OF THE AMERICAN POMOLOGICAL SOCIETY,

TO WHOM, BY TITLE OF HIS LONG, INTELLIGENT, GENEROUS, AND SUCCESSFUL EXERTIONS,

ALL LOVERS OF NATURE AND HER CULTURE ACCORD A FOREMOST PLACE

AS THE FRIEND OF AGRICULTURE AND RURAL ART:—

And also to

THE MEMBERS GENERALLY

OF THE ABOVE-NAMED USEFUL AND HONORED NATIONAL SOCIETIES,

AS TO THOSE WHO WILL BEST APPRECIATE,

AND WHO BEST DESERVE THE PLACE OF PATRONS TO,

A PAINSTAKING ENTERPRISE, CONCEIVED IN A SPIRIT KINDRED TO THEIR OWN,

This Volume of Rural Poetry

IS RESPECTFULLY INSCRIBED

BY HIS AND THEIR OBEDIENT, HUMBLE SERVANT,

J. W. JENKS.

This is complimentary to Mr. Wilder, who is so intelligent and so active; he works in the cause with such a will, that it has become a wonder among his friends where he gets the time to do so much. No celebration or meeting is complete without Col. Wilder. In the morning, before breakfast, he is to be seen trimming in his garden; at breakfast, he presides at a bountiful table, surrounded by guests from all parts of the Union; the next hour, look at him, in Boston, with a pile of letters to answer on horticultural subjects, as well as important public and private business, sending a clerk to the Bank with one hand, while the other is deciding upon the name of some apple or pear; dry good dealers and partners ask questions, and take a bite of the fruit; a cargo of dry goods is bought or sold while you wait for a friendly greeting. In another hour, our cosmopolitan is seen presiding at the weekly meeting of some benevolent or agricultural society, and receiving a deputation of admiring fellow-citizens who want him to fill some civil office. At dinner, he presides at some restaurant, over a moderate meal, but with all the prominent agriculturists listening to his wisdom or his wit. A new-comer from Georgia or Wisconsin is waiting outside for information which is soon freely imparted, and the two new (but now) friends are

seen making their way out of town, to visit some garden or orchard. At dusk, he is fondling his children in his home again at Dorchester, or showing some other party who has been waiting his return, the growth of pears on the quince, and delivering the experience of twenty-five years' success. Look at him next, giving minute directions in his greenhouse, or driving the last nail in his new and admirable fruit-room. Lamps are now requisite, and we will leave him chatting with good neighbors, but with one hand arranging other letters that must be answered before sleep is permitted, or complying with some editorial request for an article detailing his experiences. Such is Col. Wilder's career at home. We all know what it is abroad, as a leading mind and an active hand.

Professor Jenks has done his task well. We could have wished that even some few more of our favorites had found admission to his pages; we cannot find the second part of Lady Barnard's "Auld Robin Gray," which, though not so beautiful as the first, is required to make it complete. The exquisite history of its composition, and the correct version, will be found in that admirable book, Lord Lindsay's *Lives of the Lindsays*, than which there is no more delightful biography in the English language.

This volume is one to be appreciated by all lovers of rural art, and we hope to see it on every table where we visit.

CATALOGUES, &c., RECEIVED.—Catalogues des Plantes Exotiques, nouvelles et rares, cultivées dans les serres de J. Linden au jardin royal de zoologie et d'horticulture, a Bruxelles, 1857. Illustrated, and full of new things of value and interest.

First Lessons in Botany and Vegetable Physiology, illustrated by over three hundred and sixty wood engravings, and a glossary of botanical terms. By Asa Gray, New York, 1857. invaluable and carefully prepared work.

A Practical Treatise on the Construction, Heating, and Ventilation of Hothouses, &c. By Robert B. Leuchars, Garden Architect, New York, 1857.

Official Report of the California State Agricultural Society for 1856. *California Farmer* office, San Francisco. A very interesting pamphlet, and entitled to attention.

Catalogue of Fruit and Ornamental Trees, Vines, Shrubs, &c., cultivated and for sale by James W. Gray, Bull's Pond, Fairfield County, Connecticut.

NOVEL HYBRID.—"An old and zealous correspondent (R. T. C.)," says the *Gardeners' Chronicle*, "has left at our office two most interesting seedlings, the produce of one plant (a florist's Picotee), and, it is believed, of one seed pod, fertilized by either a dark Sweet William, the ordinary Indian Pink, or one of Vilmorin's Garden Dianths of the Indian Pink race. The experiment which led to so curious a result, will have indeed to be repeated next season, in order to ascertain whether one seed pod produced both forms, and what was the male parent. But we have here the important datum, that Picotees and Carnations (for R. T. C. has seedlings from both) will breed freely with certain other Dianths. What a wide field for improvement is thus opened! Imagine Sweet Williams with enlarged flowers and the delicate markings of the florist's Carnation, the same in the quasi-annual Indian Pink, and our own native Mountain Pink, from which some beautiful fairy Carnations might possibly spring. In these cases, R. T. C. suggests that the Carnation should be the pollen parent, and though many—probably all—of the first cross would be selfs, and partake only of the dark or normal color of the Carnation, striped flowers would doubtless soon appear. Of the two young plants now in our possession, one has quite the appearance of a common garden Pink, and the other is very like a Sweet William; yet they are both said to be out of the same seed pod, and that of a Picotee. The last at least is a true mule."

EDITORS TABLE.

PREMIUMS.—The publisher has noticed, the present season, that unusual numbers of the *Horticulturist* have been included in the lists of premiums to be given at fairs; and especially notes those offered by the Summit County (Ohio) Agricultural Society, which holds its exhibition at Akron, on the 7th, 8th, and 9th of October next, as contained in the list advertised in the *Beacon*, of that place.

These, among numerous others, are pleasant acknowledgments of the estimation in which the work is held—flattering not only to its conductor, but evidences of the growing cultivation which is going on among us. The *Horticulturist* was the first to take upon itself the topics of rural life to the exclusion of politics and literature. It was a very doubtful experiment, and never more than partially succeeded, for the want of an audience sufficiently large to make it much of an object for any publisher to give it exclusive attention. It had and has, however, a certain popularity, which has clung to it through its whole career; but that it is not adapted to the wants of the masses, is proved by its gradual introduction. To the many its topics are sealed books, and might as well be addressed to the blind, simply because they are not *practised* by the many. The products of the garden and orchard, it is true, are in every one's affections, but the delights attending their success are unknown to most who partake of their benefits. There has, however, grown up in almost every county and village, a practical person or two who is studying with success those branches which we love to dwell upon, and who are anxious to receive the newest and the best information that is abroad; they continue to look to the various correspondents of the *Horticulturist* for this knowledge, and we believe they are not disappointed.

But, meantime, this partial introduction of our topics to popular comprehension, has induced numerous journals all over the land to incorporate horticultural information in their varied columns, till there is an amount of instruction abroad in the land that is perfectly bewildering, at the same time that it is useful in many instances. While this competition is discouraging to a publisher whose work leaves no field of knowledge ungleaned, it must be admitted that it gives him encouragement to believe the duty he is engaged in has made its mark, and that many others are on the track laid by the efforts of his predecessors; and when such evidences as the premiums offered by the Summit County Society meet his eye, he feels fully rewarded by the acknowledgment of the utility of the journal. But it should also be remembered, that the *Horticulturist*, from the exertions of its writers to make it useful, has gone over long since most of the topics now discussed in contemporary periodicals, and is endeavoring to make an impression for an onward progress. It purports to be *an original work*, not made by the scissors—set-up by the printer almost entirely from manuscript, the amount of which, when it is spread out, would astonish those who read it carelessly, or have never compared this feature with those differently conducted; it purports, moreover, to be in advance, and is careful, while it is readable to all, not to write down to the intelligence which has but just waked up to its subjects. It is, in short, addressed to the class which has made some progress, and is anxious for more knowledge.

For this end every available source is sought out, and it will be found that topics discussed in these pages are sometimes those which are taken up by others long thereafter.

We make no complaint of want of public patronage; our snug little parish of annual listeners continues from year to year, with additions slow, but sure, and is composed of appreciative hearers.

We have written a long homily, when a paragraph only was intended, to thank the Akron Committee, and to state what many of the older subscribers and readers will fully substantiate.

The Philadelphia Park.—The appeal to our fellow-citizens for money to purchase additional ground for a park on the Schuylkill, has been entirely successful. Future generations will have cause to thank the originators of the plan, who perseveringly carried the measure, collected the money during the winter, when snow and ice were poor accompaniments of out-door labor, and presented the ground adjoining Lemon Hill, already the property of the city, to our Councils. The gentlemen to whom we are indebted for this great good, should long live in the memory of their townsmen. Their names are James H. Castle and C. W. Keyser, Esqs. Under discouragements which would have appalled most, they persevered in their laudable exertions, encountering objections, and subduing difficulties that can scarcely be understood, except by persons who have tried to do their fellow-men a service by anticipating their future wants. Long may they live to enjoy the results of their unselfish sacrifice of time, mind, and labor. Some fitting memento they eminently deserve.

Our Councils will now, beyond question, make a moderate annual provision for the improvement of the ground, so that the present generation may see its extraordinary adaptation to their health and pleasure. Philadelphia has now over two hundred acres in public parks.

Massachusetts Horticultural Report.—Mr. Eben Wight, Corresponding Secretary, has laid us under obligations for a copy of the above report, and a schedule of prizes for 1857, which are all in money, and not in books or periodicals. The report has some interesting points. Of apples "promising well," they mention the Washington (a handsome autumn fruit) and the Polish; the Fameuse (*always* good), and the Ladies' Sweeting (keeping well till May), are recommended. The Foster Apple (ripe in August) is worthy of general cultivation. Of native pears, they name Sheldon, Lawrence, Brandywine, Boston, Seckel, Tyson, Andrews, Lodge, Kingsessing, Howell, Oswego Beurré, and Adams, as the desirable kinds.

The Committee indorses Simpson's novel mode of growing two crops of grapes in one year from the same vines which gave the crop in April. Mr. Simpson made a liberal display on the third Saturday of December, 1856. The vines had a period of rest from April to August, when bottom heat was applied, and a produce of about ten pounds to the vine was the result, and the vines were in the best possible condition. The Rebecca Grape is highly lauded as superior to the Diana, and Mr. E. Rodgers is said to have fruited a number of Hybrids fertilized from the Mammoth Globe by the pollen of the Chasselas and Black Hamburg, which are promising and hardy. Mr. Allen's Hybrids are favorably noticed, and great expectations are formed of them. The Union Grape, the Delaware, and the Curtis, are also recommended.

The High-Bush Blackberry has carried off the Boston premiums; it should be trained horizontally. Of Raspberries, the Knevett's Giant and Brinckle's Orange, are favorably reported on, and Mr. Hunnewell's Stanwick Nectarines, commended. The Jenny Lind Strawberry took the $50 plate, and the Sir Harry, Admiral Dundas, and Sir Charles Napier, are among the new introductions the most desirable. The premiums offered this year will be found varied and liberal.

The Sequoia gigantea has been found subject to disease in Europe. The *Flore des Serres* says: "We add a word of reflection; that, in many cases, arborists give to conifers too substantial and rich a soil. The greater part of these trees succeed in places that would be very poor and sterile for any other vegetation, and it cannot be denied when their tissues are gorged with a sap richer in azote than belongs to their nature, they become by that means alone more subject to diseases. From another side, the mineralogical constitution of the soil represents an important character which ought not to be misunderstood; one tree is made for a calcareous, another for silicious soil; another for places where clay abounds. To decide upon this Sequoia gigantea is a great question, before placing it finally where it must remain during its long life. It may be arrived at by trying, and sacrificing to it some specimens." We call upon arborists for all their attention to this subject.

Roses.—A late work gives the annexed list of Hybrid Perpetual Roses: "The following are the best Hybrid Perpetual Roses in the greatest number of instances: Géant des Batailles, Baronne Prevost, Duchess of Sutherland, Mrs. Elliott, and La Reine (two uncertain kinds, however), William Griffiths, Madame Laffay, and Madame Rivers, Pius IX., and Robin Hood, Général Jacqueminot, for brilliancy, and Dr. Marx, or Robin Hood, or Auguste Mie, or Baronne Hallez; but after the first six or eight, there are a dozen of about equal merit."

Woodlice.—The best security is said to be, to have a space a few inches wider round the sides of the bed, and made smooth with dry ashes; the ashes, &c., in which the plants are plunged, may be kept damper. Lay a little dry hay, moss, or any other handy stuff, on the dry ashes round the side of the bed, and thither the enemy will retreat. At breakfast-time, have a pot of boiling water, and a small pot with a fine rose to it. Lift the covering carefully and quietly with one hand, and sprinkle the intruders with boiling water with the other. Place also pieces of carrot in small pots filled with moss, and they will go there to feed.

To make a Fernery Aquarium.—Procure two propagating bell-glasses, the one ten inches, and the other nine inches in diameter. Invert the larger on a stand of turned wood or a saucer of sand. Cut three pieces of zinc of an S shape, and hang them over the edge of the glass, the bottom of which must be covered to a depth of two inches with well-washed river sand. Fill with water, and introduce the weeds and fish.

A thin flower-glass standing in the sand forms a support for a saucer of Ferns. Cover with the smaller bell-glass, its edges resting in the zinc supports. A very amusing and instructive ornament is thus completed at a cost of five shillings.

Glass Labels.—These are now made of glass, for sticking into the soil after having the name of the plant inscribed upon them by means of a diamond pencil. The dark color of the soil acts as a back-ground, rendering the inscription very legible even at a distance, and the legibility would be still further increased if the back of the glass were painted black. They are made of plate glass three-sixteenths of an inch thick, are six inches long, and one inch and three-eighths wide; but, of course, they can be made of any other size desired. It must be a large stone, and thrown against it with great force, that would break this kind of label; and it has this great merit: it is invisible from a distance, getting rid of the eyesore occasioned by numerous opaque or light-colored tallies. Sixpence per dozen is the English price.

Mangosteen.—Thaddeus Davids, Esq., has put us under an obligation by sending us a dried specimen, in good order, of the Mangosteen, for which we are greatly obliged.

Gossip.—The principal objection to good garden tools is their costliness; but this is more nominal than real, for, from their better quality, they generally outlast tools of an inferior stamp, and thus they are more economical in the end than common articles, of which the first cost may be considerably less. In every article needful in gardens, even including men, the best will always be the cheapest, although costing the most money.——Two millions sterling in value of beet-root spirits were distilled in France last year—a monstrous increase on former seasons. Sheep and bullocks are fed on the residues of beet after distillation, which may have had something to do with the spread of the cattle murrain.——A party has lately ascended Chimborazo, and pronounce it perfectly accessible. Its height is 19,632 feet.——The plover is pronounced, by a writer in the *Gardeners' Chronicle*, a perfect slug destroyer. He says: "A couple of these most interesting birds (male and female) would, I am almost certain, soon clear, and keep clear, any one's ground; and if he is a lover of animated nature, and these birds should breed, he will be delighted with the extreme tenderness they manifest towards their young, which are produced about the month of May; and he had better get young ones, as the old, being very wild of flight, would most likely pine. The young are so like the clods or stones among which they are hatched (as the parents make no nest) that, but for the glint of the bright large eye, they would remain undiscovered, and as long as danger is near they lie like stones, until the anxious old ones give the safety call, when they rise and run about nimbly. They feed by night as well as by day, for, on returning home at night from a visit in the country, I have heard a whole flock of them giving tongue like a pack of hounds in the marshy meadows, or, rather, like a troop of aldermen over a turtle feast, for the slugs and worms do not like to show their faces in the bright sunshine so well as the dewy nights of summer."——Mr. McEwen is now the Superintendent of the Horticultural Societies' garden at Turnham Green, London, and is giving great satisfaction. Among his improvements, the American garden is being altered and increased in extent, and, in order to induce people visiting other portions of the grounds to turn their steps in that direction, the walk between it and the conservatory is to be lined with standard Rhododendrons, which, when in flower, will doubtless produce a brilliant display quite in keeping with the character of the grounds of which they are intended to form a part. An apparatus for determining night temperatures at different altitudes, has been erected in the kitchen garden. It consists of a pole 30 feet in height, with registering thermometers attached to it; one at the top, another 24 feet from the ground, a third 18 feet from ditto, a fourth 12 feet, a fifth 6 feet, and a sixth nearly at the ground. On the morning of the 13th of March, the thermometer on the ground indicated 28°, at 6 feet high 31°, and at 12 feet 32°, making a difference of 4° in that height. On the 16th, the difference of warmth between the same height and the ground was 8°. The practical lesson to be learned from these facts will be obvious. They serve, in some measure, to explain the reason why blossoms have been killed by spring frosts on dwarf fruit-trees, while those on tall standards have escaped, and, also, the necessity of protecting the leading shoots of the more tender Conifers, and other favorite plants, in severe winters until they have grown at least 12 feet in height. From that to 30 feet in height, the temperature has hitherto been found to be the same. As yet, however, these experiments may be said to be but in their infancy.——At one of the last meetings of the Académie des Sciences, at Paris, a member produced a number of wheat-halms of more than seven feet in height, each of them bearing several splendid ears. This fine species comes from five grains found in an Egyptian tomb; sown in 1849, they yielded 1,200 fold produce. In 1850, the experiments were made on a large scale, and assumed a more important character; they have since been regularly continued. One half of a field was sown with the Egyptian, the other half with common wheat; the former gave 60 fold, the second a 15 fold produce. The experiments are now made in always increasing extension, and we may be on the eve of a great revolution.——

The Grammar of Ornament is the title of Mr. Owen Jones's great illustrated work on various styles of ornament, which, the London *Athenæum* says, "is bright enough to serve a London family in summer instead of flowers, and to warm a London room in winter as well as a fire. It contains the result of a life's study, aided by pupils, friends, and workmen." It contains one hundred folio plates.——Recently, at the London Horticultural Society, a young stem of the Rice Paper Plant (*Aralia papyrifera*), cut in the Island of Formosa by Mr. Fortune, who has lately returned from China, was exhibited by that gentleman. He stated that there is now no doubt that Formosa yields the greater part of the Rice paper of commerce. This beautiful substance is largely consumed in the Canton and Fokien provinces. In the city of Foo-Chou-foo, every lady wears artificial flowers made from it. It is estimated that this place alone consumes about 30,000 dollars' worth of it annually! The cheapness of this article in the market shows that it must be very abundant in its place of growth. One hundred sheets, each about three inches square, can be bought for the small sum of three halfpence. One almost wonders, Mr. F. remarked, that it is not more sought after by workers in artificial flowers. Rice paper is the pith of the plant, cut into thin sheets by the Chinese.——The *Floricultural Cabinet* gives a fine illustration of the Clematis lanuginosa, var. Pallida, and says it is one of the handsomest hardy climbers we possess, and remarkable, more especially, for the immense size of its flowers, some of which have measured ten inches in diameter. It resembles closely in habit C. patens and florida, and is therefore excellently adapted for trellis-work, verandas, and other erections of like character. Having stood the late severe winters at Paris with no other protection than a slight covering of leaves, we may be assured that there are few places where it would not do well. It is easily multiplied by layers or cuttings, and will no doubt prove a great acquisition to all who are fond of showy climbers.——Plants are, says a late able writer, in virtue of their amazing ability to convert the simplest and commonest ingredients of air, earth, and water, into the most complex and precious compounds, of as much value to the industrialist, considered simply as pieces of apparatus, as the most elaborate engines he has constructed. Nor is it otherwise with animals. They do not work with so simple a raw material as plants do; they use plants, indeed, directly or indirectly, as their raw material; but they convert them into products raised in industrial value by the additional workmanship bestowed upon them. We have thus the silkworm, whose calling it is to turn mulberry leaves into silk; the bee, who turns sugar into wax; the coccus, who turns cactus juice into carmine; the oyster, who turns sea-chalk into pearls; the turtle, who turns seaweeds into tortoise-shell; and the whale, who turns sea jellies into oil and whalebone. The birds are the only makers of quills and feathers; the hogs, of bristles; the elephant, the walrus, and hippopotamus, of ivory; the sheep, of wool, not to speak of fat and mutton; the ox and his congeners, of undressed leather; the beaver and his brethren, of hat-felt; and myriads of wild creatures of land and sea, of furs and skins. The most important industrial relation of many others is their power, as machines, to convert weeds of various kinds into beef, mutton, venison, milk, butter, eggs, the flesh of birds and beasts, and fishes. He continues thus: "At every agricultural show, prizes are given to the exhibitors of vegetables and animals, which differ as much from their protoplasts as Watt's steam-engine does from Savary's or Newcomen's. So much has cultivation changed our most highly-prized cereals, that it is a matter of dispute from what forgotten weeds wheat and barley, as we now see them, have been elaborated. Our apples and pears were once sour crabs; our plums, austere sloes; our turnips, acrid radishes. We have as truly created such fruits and vegetables as the chemist has created ether or chloroform. The physiologist, no doubt, is much more limited than the chemist as a creator, but he is as truly one. Both work under that aphorism of the *Novum Organum*, which teaches us to conquer nature by obeying her."——Dr. Lindley is writing much, lately, regarding the decay of races, in which he upholds his former opinions very

forcibly. The rose grower, Mr. W. Paul, takes up the topic, and, in the course of his remarks, says: "Although, in the *Florist* of October, 1855, Mr. Rivers writes, 'one almost fears the point of perfection has been attained, and that no better roses than those we now possess can or will be originated,' it would perhaps be hardly fair to infer that Mr. R. doubts the progression of races. This indeed cannot be, for, while depreciating new roses, he recommends a list of no less than twenty-eight new varieties of pears. It seems, rather, that he has forgotten the old proverb, 'Nature does not advance by leaps,' and expects too much from his 'old friend of thirty years' standing, the rose.' This proverb applies with peculiar force to the various families of flowers. Every raiser of seedlings knows that nature does not advance by leaps. To look on new roses as they appear from year to year, improvement is perhaps not great. If we are seeking for striking results, we must look backward into the storehouse of time. I remember, many years ago, the late Sir Abraham Hume, who was a great patron of gardening, presenting my father with half a dozen roots of single dahlias. How were they prized! Every seed was saved and sown, and, when the single row of flat petals surrounding a yellow disk was converted into a double flower, how great was the acquisition considered!"——Turpentine is recommended for the cure of scale; some experiments are detailed, and we copy the following: "To get rid of scale on orange-trees, I took a small quantity of turpentine in an earthen pan, and, as I did not use it at once, it was absorbed by the pan. I then added about three times the quantity of warm water, which was strongly impregnated with turps. To this I added a small piece of soda, and the same of soap. This was applied by the hand in the manner of washing, and it answered, as I have stated, satisfactorily."——A branching pine-apple is exciting much interest abroad. Among the curious plants sold to the Crystal Palace Company by Mr. Loddiges, was an unfruited specimen. Under the skilful management of Mr. Eyles it soon produced three young ones, and these, having now arrived at maturity, are found to possess the branching habit much as it is described by Rumphius. The specimen before us is ten inches long, twelve and one-half inches round in the widest part, and has a weak, cockscomb crown. At its base sprout out thirteen small pine-apples, each from two and one-half to four inches long, and terminating in a slender, imbricated crown. What gives this production peculiar interest, is the proof which it offers of all the "pips" or flowers of the pine-apple being leaf-buds in a state of abortion. While in that condition the parts all swell, the centre is fixed, and a "pip" is the result. But if, owing to high temperature, excessive moisture, unusual stimulants, or any other disturbing cause, the customary abortion is removed, then each pip sprouts into a branch, assuming the pine-apple conformation, and a brood of little fruits is the result.——"We have sometimes (says the *Rural Intelligencer*) sprinkled a favorite cherry-tree with ashes or quicklime, in order to save the fruit from the ravenous worms; when this has succeeded, and we have feared the robins and comb-birds, we have spread a net over the tree; but the meshes, though small, were not small enough, and we have found the birds under it taking their dinners. But the best protection against worms and cherry birds that we have yet found, is a boy in the neighborhood, who, after the fruit has been preserved until fully ripe, is sure to enter the garden and rob all that would otherwise remain as the reward of our toil and care. His parents think he is a remarkable child; and, if he continues in his thievish habits, we presume they will find that he will yet come to a remarkable end."

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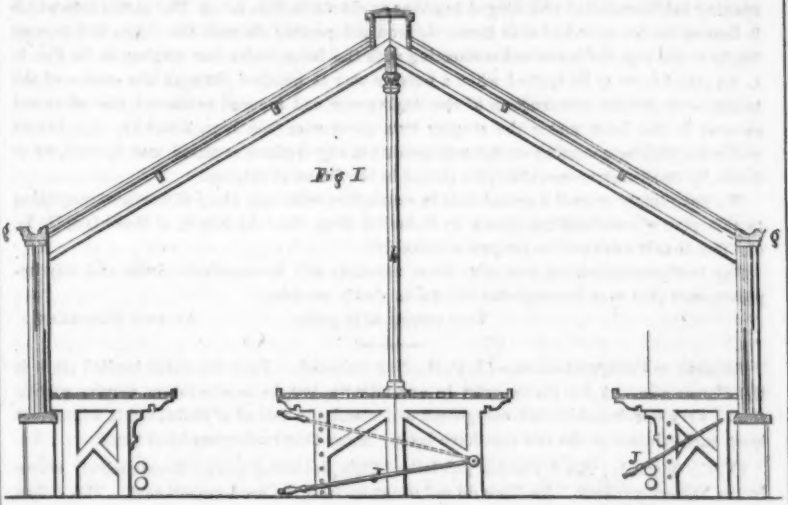
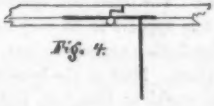
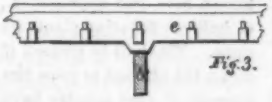
878 Broadway, New York, March 13, 1857.

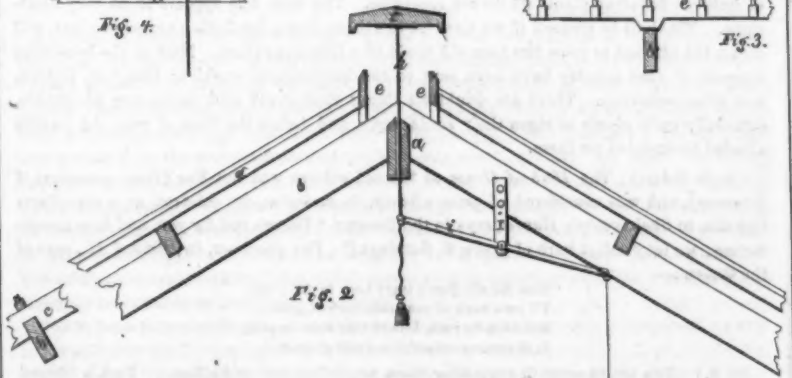
J. J. Smith, Esq.—Dear Sir: The great interest you take in all things relating to horticulture and the universal popularity of your journal, induces me to send you a plan of ventilation for permanent roofed greenhouses, which I think is superior, in many respects, to any I have yet seen. The construction is simple, not likely to get out of order, is easily

regulated, and can be opened in any weather, from the inside. Being in the highest point of the house, and continuous from end to end, it affords a greater escape of foul or heated air, and operates equally on all parts of the house at once; the caps, when open, being directly over the opening, protect the plants under it from excess of moisture during protracted rains. You will perceive that the sash bars are raised, by the stretchers, clear of









the rafters, thus increasing the opening at the ridge, and affording a free circulation of air, lengthwise, immediately under the glass, which, if not of any material benefit to the air of

the house, is calculated to preserve the frame from decay, as the less joining of wood about a greenhouse the more durable it will be. To illustrate the drawing, let *a* be the ridge. *b*. Rafter. *c*. Stretcher, or running raft, on which rest the sash bars (*d*). *e*. The sides of ventilator, into which is framed the upper end of the sash bars, being narrowed to the under side of sash bars between the rafters, as shown on Fig. 3. *f*. Caps covering the opening half dovetailed and hinged together as shown in Fig. 4. *g*. The gutter into which is framed the lower end of sash bars. *h*. Iron rod passing through the ridge, and secured firmly to the cap, the lower end connecting with the lever under the staging, as in Fig. 1. *i*. An attachment to be applied when a passage-way is required through the centre of the house, or to suit the construction of the staging, one end secured to the rod, the other end secured to the lever under the staging by a stout wire (see Figs. 2 and 1). *jj*. Levers under the staging operating on the cap, opening it any distance required, and secured, up or down, by stationary or movable pins placed in the frame of staging.

We have lately erected a greenhouse in connection with our place of business according to this plan of construction, drawn by Gamaliel King, Esq., Architect, of Brooklyn, N. Y., and find that it answers the purpose admirably.

Any further explanation you may deem requisite will be cheerfully given, and any improvements that may be suggested will be as gladly received.

Very respectfully yours, ANDREW BRIDGEMAN.

ANSWERS TO CORRESPONDENTS.—(J. P. H., New Orleans). Your beautiful berried plant is the *Ilex cassina*. A few plants exist in our vicinity, but, in most winters, require protection. Very few broad-leaved evergreens will stand the test of a Philadelphia winter—at least, such winters as the two past have been. Many thanks for your kind favor.

(N. C., Oregon). No. 1, *Clarkia pulchella*. This beautiful annual is extensively grown in our Eastern gardens. No. 2 we do not recognize from the seed-vessels sent. The yellow flower belonging to the seed, in the same package, is of *Escholtzia californica*, also well known here, and appreciated. No. 3 is *Œnothera Drummondii*. The other two specimens of bulbous flowering plants we do not recognize. The blue one appears to be very handsome. We shall be pleased if we succeed in raising them, but little success, we fear, will crown the attempt to raise two year old seeds of a liliaceous plant. Most of the handsome annuals of your country have been sent to the horticultural world by Douglass, Nuttall, and other collectors. There are doubtless things that would still prove very acceptable, especially such plants as ripen their seeds early, and before the time of year the parties alluded to explored for them.

(A. D. JONES.) The *Herb of Grace* of the old writers was the Rue (*Ruta graveolens* of Linnæus), and was considered of great efficacy, in medicine, for children as a vermifuge. Ophelia, in Shakspeare's *Hamlet*, says to the Queen: "There's rue for you, and here's some for me; we may call it herb of grace, O, Sundays!" The gardener, in *Richard II.*, says of the Queen:—

> "Here did she drop a tear; here, in this place.
> I'll set a bank of rue—sour herb of grace:
> Rue even for ruth, here shortly shall be seen,
> In the remembrance of a weeping Queen."

(S. S.) You are in error in supposing there are no scented camellias. "Park's Striped Rose" is slightly odoriferous, as is the myrtle-leaved variety; but you are correct in wishing the tribe were more generally so.

(J. G., Leesburg, Virginia.) Your question is rather indefinite, as you do not say how far the "young gardener" has progressed in his studies. Loudon's *Encyclopædias of Gardening and of Plants*, are the best, and, for a "beginner" in botany, there is no book equal

to Gray's *First Lessons*. We still think there is no better work to study for gardening purposes than McMahon's, now going through a tenth or twelfth edition in this city.

(John T. Plummer, Richmond, Ind.) "One correspondent says tan is of no service to any crop but the strawberry; another, that it is an excellent manure for the raspberry." The old adage, that what is "one man's meat is another man's poison," is applicable to the use of tan as a manure. It is very uncertain in its results. Applied to strawberries, we have known it utterly to kill out the plants, and, in other cases, to benefit them remarkably. It no doubt varies in its properties, and this accounts for the different experiences of the correspondents alluded to.

The Autumnal, Boston, Marrow, and Marrowfat Squash, are all names for the same article; the vegetable Marrow is another thing.

"Some say, thoroughly manure fruit-trees; others say, add none at all. What shall the inexperienced do?" Fruit-trees must have rich soil. Manure moderately at first. If the trees continue healthy, but grow slowly, add more nutriment till they grow vigorously.

"Lindley says: 'It has been ascertained that silex, phosphate of lime, phosphorus, &c., are formed in plants, the aliment of which did not contain them; it is inferred, the presence of such principles depends upon the operation of the vital principle of vegetation.' Does such a man as Lindley, in the middle of the nineteenth century, mean to say that plants *create* silex, &c.?" We "guess" so; something of that sort. Our correspondent should remember, that "though in the middle of the nineteenth century," very little is known of these things. We scarcely know what we mean, even when we speak of vital force. Oxalate of lime has been found, in its granulated state, in the structure of cactuses, without a trace of oxalic acid or lime being found in the soil that supported them. Where would our correspondent suppose it came from?

The Japan Pea has various common names. It is, as you suppose, the *Soja hispida* of botanists. Many species of *Cajanus* are used for the same purpose as this, and occasionally get the same common name. Our correspondent recommends it very highly as a productive, easily cultivated, and excellent family vegetable.

Flushing, 3d Month 7, 1857.

Respected Friend: I notice, I think, a mistake in the last number of the *Horticulturist* (page 149), respecting the Chinese Quince. It is there stated that it is the Cydonia japonica, "grown here for the beauty of its bloom." The Chinese Quince, as stated by C. D. Meigs, is the Cydonia sinensis, totally distinct from Cydonia japonica, or Pyrus japonica, as it is more generally called, and also from every other variety of the Quince. I am surprised that it should be anywhere stated that the blossoms are "of a fine rose color," for, if not quite white, they have, at most, but a very faint blush. I have known it to fruit here, but by no means freely. It grows, however, *freely*, is perfectly hardy, and makes an upright, handsome tree, with very pretty and striking foliage, and is entirely free from thorns, and in every way as opposite as can well be imagined to the species with which it is confounded. We cultivate a variety called *lutea*, but it appears to be identical with the other, and has probably been added to swell some catalogue.

I have been acquainted with a tree of the Chinese Quince, in this town, about twenty years, and I doubt if it has produced, all told, as many fruits.

Respectfully thy friend, John B. Foster, *Foreman for Parsons & Co.*

[Mr. Foster is right.—Ed.]

Betula excelsa.—In the February number, it is rather assumed that the *Betula excelsa* and *lutea* are distinct, but nearly similar species of birch. I had never doubted but that the *excelsa* of Willdenow, Acton, and Bigelow, is the lutea of Michaux, *f.*; and Bigelow, I observe, gives the lutea of Michaux as a synonym of the excelsa. A. W. C.

The *New Rochelle Blackberry* will not endure our winters here, unprotected; neither will the finest raspberries; I have just noted, as follows:—

Hudson River Antwerp Raspberry, not much injured; about a third of last year's growth killed.

Col. Wilder, slightly injured at ends of branches.

Brinckle's Orange, not much hurt.

Knevet's Giant, slightly injured; about as hardy as Col. Wilder.

Cushing, killed down to snow-line.

Vice-President, rather tender; killed more than half last year's growth.

Thunderer, nearly as hardy as the common Blackcap. This is a very strong grower, producing a good-sized, firm fruit, well adapted for market.

These varieties all need protection, but they pay well for it.

Peaches, cherries, and plums, are in good order.

Yours, truly, CHARLES BETTS.

St. Joseph's County, Michigan.

STAUNTON, VA., March 25, 1857.

EDITOR OF THE HORTICULTURIST.—DEAR SIR: I send to you this day, per Adams & Co.'s Express, a sample of an apple cultivated and disseminated through this State under the name of "Albemarle Pippin." My attention was called to it seven years ago (soon after I came here to reside), it being spoken of in the highest terms. I put myself to no little inconvenience to get a glimpse at the *ne plus ultra* of apples, and, I assure you, I was not a little surprised to meet an old acquaintance—the *Yellow Newtown Pippin*. I obtained some specimens at the time, and presented them to persons whom I thought better acquainted with fruits than myself, and they agreed with me that it was, beyond doubt, the Newtown Pippin. The specimens I send you are not so fine as we often have, nor do they show to a good advantage, as they have been much bruised by hauling some thirty miles or more over a rough road; but you will make due allowance for all this in treatment, and, I think, still find the Newtown Pippin in them.

Thomas, in his *Fruit Culturist*, describes the Albemarle Pippin as a distinct variety. There is no doubt that soil and climate have much to do in bringing out the good qualities of fruit, and Albemarle County, and all that range of country in proximity to the eastern base of the Blue Ridge, so far as I am familiar with it, seems particularly adapted to the growth and perfection of that variety. As I said before, it is cultivated and disseminated through this State as a distinct variety, and it is for the purpose of correcting this error that I now write, as I think it the duty of every one to correct every error in the nomenclature of fruits that may come under his notice. FRANKLIN DAVIS.

[We think the apple is the Newtown Pippin, modified slightly by soil and climate.—ED.]

MARIETTA, OHIO.

J. J. SMITH, Esq.: I send you to-day, by Adams' Express, a couple of apples of a variety called here the Prince Apple. It is one of the most salable and productive varieties we have. In season from December to May; keeps well. The specimens sent are the best of last season, but no more than the average of a good apple year. If you are acquainted with the apple, please give the name by which it is known, as I can find no apple of the name we give it here in the different works on fruit, or in catalogues.

Yours, respectfully, J. M.

[The "Prince" was received in good order, but it is unknown to us. It has something of the appearance of the William Penn of Columbia, but all the specimens of the latter we have seen are more oblate.—ED.]

To the Editor of the Horticulturist: Noticing in your valuable magazine, of the present month, an advertisement for the sale of the Becar seedling camellia, *A. J. Downing*, I was much surprised that so rare and truly beautiful an acquisition as this certainly is (doubtless, by all odds, the finest American or any other seedling camellia ever raised), was not more generally advertised; of course it was in the *Horticulturist*, and why not in Hovey's *Magazine*, *Country Gentleman*, *&c.*, that all readers might have an opportunity of trying for, if not all able to procure so rich a floral treasure? For my part, I think it very clumsy management on the part of those to whom the matter was intrusted (which by no means is intended to include Mr. Rauch, the worthy *agent* and good florist). A drawing of it ought to have been taken when in flower last winter, and by that accomplished flower artist, Mr. Wakeling (now somewhere within hail, even in this wide country), the prints carefully colored, and published as the frontispiece of your number simultaneously with the advertisement. Q. Q.

N. J., March 26, 1857.

Milford, Conn., April 15, 1837.

J. J. Smith, Esq.—Sir: I transplanted some tulip-trees, two years ago, with such success, that I wish the readers of the *Horticulturist* to know how it was done. In June, when the trees were in full foliage, I selected trees—say six or eight feet high, growing in turf ground. I took them up with the sod around the roots. I then *pinched off all the leaves*, and planted them without shortening in; they soon threw out new leaves, and are now thrifty growing trees. I have also found no trouble in transplanting our native hemlocks, by taking them up with the earth *unbroken around the roots*, which is easily done when they do not grow among the rocks, as they always throw out a network of roots on the surface, and, with proper care, they can be taken up without exposing the roots. Should the earth fall off from the roots, throw away the tree; you cannot save it.

Yours, truly, G. C.

Treddle Spade.—Subjoined is a sketch of my treddle spade. It is a most useful tool for raising trees, so powerful as a lever, and most convenient for root pruning; for, although it does not cut cleanly, I find that the roots that are cut with it heal more quickly. It is

curious to see, in rural matters, such tenacious customs as one often finds. My men, a large body (seventy or eighty) of "'cute" laborers, will not use a garden spade; they call them, for nursery purposes, "old women's tools." The blade of the treddle is eleven inches long, eight inches wide at top, and six inches at bottom. From top of haft to blade is two feet three inches; entire length, three feet two inches. About four inches of lower part are of steel, so as always to be sharp. Thos. Rivers.

Dexter Snow's Verbenas.—We have the following note from Mr. Snow, and are pleased to record such success. The idea of taking up a simple popular plant, and devoting exclusive attention to it, was new, and deserved to succeed. His letter is as follows:—

Chicopee, Mass., May 19, 1857.

"I forward you a box of one hundred varieties of verbenas, for the purpose of showing you I have some fine ones, and that you are not assisting and countenancing a humbug! Your notice in the March *Horticulturist* has been a great assistance to me, and has done

more to encourage me than anything I have had done for me before; it has seemed to inspire confidence in the people, as many have stated your work caused the orders. With such assistance, my business cannot be otherwise than a success; and I am quite unable to pack and get off my plants fast enough, my orders being now two thousand plants ahead of me, and two men packing all the time, and am sending them into every State in the Union, Canada, and New Brunswick—in fact, wherever the *Horticulturist* circulates. Please place them in one bed, to see how they compare with other collections. I put in a good stock of sweet scented varieties."

City of San Jose, Cal., Dec. 10, 1856.

Mr. Editor.—Dear Sir: We have started a State Horticultural Society in California. I have sent you a copy of our Constitution. It was organized at our last State Agricultural Exhibition, held, in San José, in October last. We intend to meet in San Francisco, in April next, and complete our Constitution and By-Laws, and after that we shall no doubt have monthly, and perhaps semi-monthly, exhibitions of fruit and flowers, as they come in season.

Horticulture, in all its several branches, will, no doubt, in course of time, be developed, in California, in all its beauty, richness, and grandeur. The congeniality of its climate, the almost endless variety of its soil, and its scenery; the countless number of its indigenous plants, of almost every name and gender; indicate plainly that all that is wanting is industry and science (and that is fast coming on), to collect, arrange, and display, the rich treasures scattered throughout its valleys, plains, and mountains. Flowers cultivated here appear to have brighter tints, a more delicate fragrance, and a more contented appearance than the same varieties have in other countries; fruits have a richer flavor, and are generally much larger in size than they commonly have. I am afraid to tell you the size and weight of some of the fruits exhibited at our last annual Agricultural and Horticultural Exhibition. What think you of winter pears weighing a pound each? Bartletts weighing twenty-seven ounces, and measuring sixteen and one-half inches by seventeen and three-fourths?

Yours, respectfully, Wm. Daniels.

Wine.—In a letter from Naples, the writer assures us that there will be a very productive wine year in Italy, the vines not having presented so healthy an appearance for many years. The people decline to use sulphur, as they assert that wine made under its influence was undrinkable.

Mount Joy, Pa.

J. J. Smith, Esq.—Respected Sir: The vegetable curiosity in the shape of an enormous truffle, found in Virginia, is highly interesting. I examined the account published in the *Agricultural Patent Office Report* for 1854, respecting the culture of the Piedmontese Truffle (*Tuber magnatum*), and that of *Agaricus campestris* (the Mushroom.) This latter is stated to be from one to three inches, sometimes four or more, in diameter. The author of the *Vegetable Kingdom* (Wm. Rhind) states that they vary much in size, and mentions several instances of being upwards of nine inches in diameter, and one weighing one pound eight ounces, and measuring thirty-two inches in circumference, and ten inches around the stem.

The truffle, so celebrated in the annals of cookery, is found, in clusters, some inches under the surface of the ground, and no appearance to indicate their whereabouts. Dogs are trained, with much pains, to search out these subterranean delicacies. Loudon informs us that an instance is recorded of a man having possessed this power. One weighing four ounces is considered large for England, yet, in Italy, some are occasionally found weighing from eight to fourteen pounds. (*Vegetable Kingdom*, Wm. Rhind, p. 193.) Lindley informs

us that Borch raised Tuber Borchii from the sporoidia about the year 1780, and the growth of the common Truffle has been attempted with more or less success. Your correspondent takes it for granted that your readers are aware of its locality, since he does not state how or where it was found, on or under the surface of the ground.

I am led to make these remarks from the fact, that, in my botanical rambles, I have, on several occasions, met with a species of fungi, on the edge of woods in old pastures, of enormous size, lying close to the ground, in appearance like a loaf of home-made bread, having a firm white flesh internally. I am not now prepared to say, whether a species of Agaricus, or allied to the Borista gigantea of Europe, is edible, not being particularly interested in fungi, and always suspicious of them as food, in consequence of the resemblance of poisonous and wholesome species. I would not question the ability of the Professor of Chemistry of Georgetown College to discriminate and judge correctly, yet deem a fuller description needed to enable the readers of your journal to judge for themselves.

Yours, respectfully, JACOB STAUFFER.

P. S.—Respecting the Buckwheat-Tree (*Cliftonia mylocarium*), it may not be amiss to say, that Prof. Darby describes it, in his order, Ericaceæ, next to Elliottia. Both these plants Lindley includes with Cyrilla in his order Cyrillaceæ, among the Berberal alliance.

You say, a tree in blossom is figured in Nuttall's *Supplement to Michaux's Sylva*. A few years ago, Rev. Dr. J. G. Morris, of Baltimore, presented me with a large collection of Florida plants, unnamed, over which I have frequently puzzled myself, with the aid of Lindley and Loudon's *Encyclopædia*. I found a branch of the tree in question among them, and send you a sketch, taken from Lindley's late work (illustrated), thinking it might give you some further idea, as the name *Cliftonia* seems to be obsolete.

[Nuttall was our authority. Your drawing agrees with his.—ED.]

MR. CALEB COPE'S beautiful place was sold, as advertised last month, for seventy thousand dollars—a price below its estimated value, and scarcely the price the land was worth without the extensive green, hot, and grapehouses; and, while we write, the sale of the plants is proceeding. There is something melancholy in the dispersing of such a family of rare and curious productions, of whose prices we may have something to say next month. Mr. Cope has deserved well of his fellow-citizens; his enthusiasm knew no bounds, and his plants and fruits will be greatly missed from our monthly and yearly exhibitions. Let us hope that his successor, Mr. G. H. Stuart, will be equally active and intelligent in the pursuit.

FRUIT.—We have rarely seen so great a display of fruit blossoms as during the past month. Apples, pears, and cherries, promise most abundantly. We had, at some points around Philadelphia, a hail-storm, of a few minutes' duration, on the 15th, but it did little or no damage. As a general rule, though the ground has been wet for the farmer, April has been a propitious month for the gardener, whose labor, postponed to a later period than usual, is likely to be largely rewarded. Strawberries are rapidly approaching perfection in this latitude, and we hope to report on a favorable crop.

THE *Cotton Planter* says of the Herbemont Wine: "Our friend, Dr. Boling, of this city, presented us, the other day, with a bottle of his Herbemont Wine, of the vintage of last year. To our agreeable surprise, we found it fully equal to the very best *bland* Madeira—a perfectly delightful table wine, soft and velvety; the color, a most beautiful amber, with all the aroma of the luscious, highly flavored Herbemont. This grape is one of flattering promise here, for a very superior article of table wine. We hope Dr. Boling will have some of this wine on exhibition at our next State Fair; if so, look out! ye Catawba amateurs!"

Dr. Lindley appears not to have liked the article from the London *Illustrated News*, which we copied for what it was worth in our April number. He thus scolds the cheats and the cheated in the *Gardeners' Chronicle*, for what might sometimes apply to our own home regions:—

"*People love to be cheated.* There is no doubt about it. Lies are charming; and the greater their dimensions, the more easily are they swallowed. The wonderful, although impossible, carries with it a fascination which nothing can resist. John Bull, under the eye of a mountebank, especially if he comes from a far land, is like a bird under the gaze of a serpent, with this difference, that the bird jumps down the reptile's throat, while the mountebank jumps into Mr. John's pocket. This is a national peculiarity, manifested everywhere, as showmen, quack doctors, patent medicine venders, manure makers, miracle mongers, fortune tellers, political conjurors, joint stock company promoters, and every other sort and form of humbug, know to their profit.

"Such being part and parcel of the constitution of our worthy fellow-countrymen, and the disease in question being absolutely chronic, as the learned would say, it seems useless to put men on their guard against the swindlers who swarm in all directions; as alas! we know it to be. So far, indeed, is naming these gentry from teaching people what to avoid, that they only rush to them the more. Nowhere is this more conspicuous than in the gardening world. The very man who grumbles at paying an honest tradesman a shilling for a red moss rose, will gratefully deposit his two guineas in the palm of the knave who professes to sell him a yellow one. In short, it is only necessary to hire a shop in some London thoroughfare, and circulate handbills, informing the gaping public that the celebrated foreign naturalist and traveller, Herr Chetalisky, has just arrived from remotest parts of the great Tartarian desert, that fertile country never trodden by the foot of man. To the announcement should be added a list of the invaluable natural products brought by Herr Chetalisky, and offered to the public at from one to five guineas each. The list will of course include apples weighing six pounds each; pears as large as your head; strawberries weighing a couple of pounds, and growing on trees whose branches weep beneath the burden—a great convenience to invalids who cannot stoop; cherries bearing ripe fruit every month in the year; asparagus, such as is served up at the table of the Great Mogul, having the valuable property of growing two feet in a day, and requiring neither water nor manure; roses of surprising size, blue striped with yellow, black barred with crimson; tulips the size of punch-bowls; potatoes smelling of Eau de Cologne, a most wonderful property never before heard of, and so on. To this must be added plenty of pictures, said to represent faithfully the novelties in question, executed after photographs obtained by an entirely new process, discovered in the mountains of the Moon. All this prepared and well advertised, the shop will soon fill with eager buyers.

"To simple people, all this must seem an absurd exaggeration; but they are quite mistaken. Announcements quite as remarkable are coolly made in the city of London, in this present month of March, A. D. 1857, and find plenty of believers who joyfully pay their money, and go their way rejoicing."

"*A Simple Contrivance for Transplanting Trees* from place to place with facility," says a correspondent, "without injury to the ball of earth, and that which is of the greatest importance, without lifting the tree from the ground to the carriage, thereby admitting of a much larger ball than usual being attached to it, has long been a *desideratum*. I will endeavor to describe a plan invented by a Mr. Thomas, a very intelligent landscape gardener, which combines all the requisites, and has been used in this neighborhood with great success and satisfaction to all parties. Take a sheet of iron four feet square and one-eighth of an inch thick. We must suppose one side to be the front; on the front, therefore, rivet

two strong iron staples, one near, but not close to, each corner. These staples must be cleft to admit and embrace the iron sheet; rivet also two staples behind, so that a horse, or two or three men, may, by means of ropes, drag the contrivance on either side. The tree is to be placed upright on this iron sheet, and fastened to it by cords passed through the four staples; it can now be dragged over the ground without any shaking, and as it slips over the surface without much labor, and as no lifting has been required to place the tree on the carriage, very large balls can be conveyed with the tree, thus lessening the risk of moving."

Hints on Bedding out.—As the time for planting the bedding out plants, where they are to form the great display of the flower garden, has arrived, it cannot be too strongly urged upon those who have this work to do, that system in arranging the colors is absolutely necessary to complete success. It ought to be no satisfaction to an amateur or professional gardener that his grounds look well, while it is plainly seen they might have looked better. Those who have paid attention to this part of the gardener's business, must have often noticed that different artists produce very different effects with the same plants, and this will be found to arise more from the judicious arrangement of the colors than from any other cause. A flower garden may be richly furnished with plants, but be very ineffective, if the colors are badly arranged, and, unfortunately, this subject receives very little attention generally, although nothing can be more important. Thus, what can be more beautiful than some of the yellow calceolarias or white verbenas? but place the two sorts together, and the pure white of the verbena is destroyed. For producing brilliant effect in masses, reject particolored flowers; such are never effective. Use pure and decided colors, such, for instance, as pure white, scarlet, deep purple, bright yellow, good blues, &c.; also take care not to mix plants which are of a doubtful duration when in bloom with those of a more permanent character. The prevailing system of edging beds with contrasting colors, imparts a highly interesting feature; for instance, a bed of scarlet geraniums edged with white alyssum, or manglesii geranium, with the flower buds taken off as they rise, or the yellow calceolarias edged with blue lobelias, have a good effect. Those which are in close affinity kill each other. J. B.

Concord Grape.—A valued correspondent writes: "If I were confined to but one grape-vine, it would certainly be the Concord."

A Good Potting-Bench Practice.—This is a quick and pleasant way of shifting a plant without disturbing tender roots, and endangering a loosely-held-together ball. I have used it for years, and in some cases it is invaluable.

Place the new pot before you; crock it, drain it, moss it, and bottom it with soil as in the usual way. Now take the plant *in its old pot*, and place it bodily on the bottoming of the new pot; fill up the space between the inner side of the new pot and the outer side of the old one, using the potting stick or your fingers, as the case may require. Now take out the old plant, pot and all, and you will have a beautiful mould or matrix, a little larger or smaller than the ball of your plant, according to the depth in which you potted the old pot in the new one. Now turn out the ball, pop it into the hole, press it down, and the thing is done. If the rim of the old pot is kept a trifle higher than the rim of the new, the ball will generally fit. This part will depend on the operator. I can only describe the operation. A Practical Friend.

Mr. H. W. Sargent, of Wodenethe, has sent us an excellent article on the state of his various evergreens this spring, which shall appear in our next.

Irritability of Plants.—"In alluding, incidentally, so much to cleanliness, I give it," says an eminent writer, "a prominent place in the elements of success. A great point is gained when we come to look upon a plant as an organized existence very different from a clod or a stone, and with powers of irritability frequently approaching that of sensation in animals. I have seen many gaze in wonder at the mysteries of the Sensitive Plant (the *Mimosa pudica*), whose leaflets droop at the slightest touch, and from that day become more earnest and careful cultivators. I have seen dozens of boys and girls watching the leaflets of various Acacias, the *Cassia corymbosa*, and even the common French Bean, folding back and going to sleep at night, and I have been assured that they in future experienced a love and a sympathy for plants which they never felt before. When we find our young people talking of the shaking vagaries of the side leaves of the *Hedysarum gyrans*, while the terminal leaflet alternately rouses itself into wakefulness, and then lulls itself again to drowsy repose; when you hear them making out lists of flowers that open and shut at certain hours and in certain states of the atmosphere, some at mid-day, and others at midnight, or of others that throw off their perfume in compliment to the sun, while others hoard up such treasure in honor of the stars and moon; when you hear learned discussions on how mineral and vegetable poisons exercise a similar and as destructive an influence upon plants as upon animals; and when you listen to expressions of delight at the beautiful harmony and reciprocity existing between the vegetable and the animal world, then, indeed, may we expect to see beautiful plants more generally in windows, and the culture of them attended with a charm and an interest never formerly known."

Roasted Gourd-Seeds.—It is only partially known that the roasted seeds of many of the Gourd tribe furnish an excellent addition and nice variety to the dessert, particularly those of the *Cucurbita pepo gigantea*, which produces seeds in abundance, possessing an agreeable nutty flavor. Amicus.

Newport.—A few lines from Newport thus speak of the late winter: "Our evergreens look sadly brown and red, but I think they are not seriously injured. This has been the most severe winter *ever* known at Newport."

A new work on French fruits, called "Le Jardin Fruitier du Muséum ou Iconographie de toutes les Espèces et Variétés d'Arbres Fruiters cultivés dans cet établissement, avec leur description, leur histoire, leur synonymie, etc.," is announced in Paris, from the pen of the eminent botanist, M. Decaisne. It is to appear monthly, in small quarto, each number containing four colored plates, price five francs. Pears are to be taken first. M. Decaisne announces his intention to sweep clean away such vulgar (*banale*) names as Beurré, Colmar, Bergamot, which he says have lost all meaning, and he will propose one name only for each sort of pear, to the exclusion of the crowd of names now producing chaos everywhere. Let us hope that the intended revolution will not end in worse confusion still.

At a late London horticultural exhibition, there was a large piece of the root of *Aralia papyrifera*, which Mr. Fortune brought over to show how the Chinese make their rice paper from it; but why they call it rice paper, is best known to themselves. The pithy part of the root is so thinly sliced by the Chinese as to resemble paper, which they make into ornaments, and which they sell much cheaper than our cheapest paper. There was also a plank of Beech, to show how the soft and inferior woods may be impregnated with a solution, to render them as durable as the best Oak. Some fine drawings of new Orchids, from Mr. Linden, were on the table.

PROPAGATION OF FISH.—Cleveland (Ohio) has the honor of producing an original work of very great importance to this country, on a subject that has frequently been noticed in the *Horticulturist*. The title is: "A Treatise on the Artificial Propagation of Certain Kinds of Fish. By Theodatus Garlick, M. D." In conjunction with Dr. Ackley, the experiments have been carried on till a treatise, every way worthy of the subject, is presented to the American public; so plain in its statements, that no one can misunderstand them. This handsome octavo deserves to be very popular, and that its topics may be *practically* studied, must be the wish of every lover of his country.

Horticultural Societies.

HARTFORD COUNTY HORTICULTURAL SOCIETY.—The following are the officers for the ensuing year: *President*—WILLIAM W. TURNER. *Vice-Presidents*—Dr. G. W. RUSSELL, Dr. J. S. BUTLER, H. W. TERRY, Hartford; HENRY MYGATT, Farmington; CHAS. L. PORTER, East Hartford; N. W. STANLEY, New Britain; NORMAN PORTER, Berlin; SALMON LYMAN, Manchester; E. A. HOLCOMB, Granby; Dr. H. A. GRANT, Enfield; S. D. CASE, Canton; SHELDON MOORE, Kensington; T. C. AUSTIN, Suffield. *Recording Secretary*—D. S. DEWEY. *Corresponding Secretary*—T. R. DUTTON. *Treasurer*—P. D. STILLMAN. *Auditor*—H. L. BIDWELL. *Standing Committee*—WM. F. TUTTLE, SETH H. CLARK, GEO. BRINLEY. *Committee on Fruits*—W. F. TUTTLE, M. C. WELD, GEO. BRINLEY. *Committee on Flowers*—D. S. DEWEY, E. GOODRIDGE, JAS. STEBBINS. *Committee on Vegetables*—C. T. WEBSTER, N. HOLLISTER, J. H. GOODWIN.

PENNSYLVANIA HORTICULTURAL SOCIETY.—A stated meeting of this Society was held at Concert Hall, on the 20th of May. The exhibition of plants, fruit, and vegetables, was quite large; of the latter, Mr. A. L. Felten and Mrs. Wetherill's gardener made a beautiful display, and both received premiums. Mr. Felten also received the first premium for the best asparagus. The collection of greenhouse plants from Mr. Anspach, and grapes, received premiums. E. M. Davis received a special premium for apples, in a fine state of preservation, and one was given to Geo. Lasenby for delicious looking pine-apples.

Calendar of Operations.

JUNE.

THE VINEYARD.

BY R. BUCHANAN, CINCINNATI, OHIO.

JUNE is a busy month with the vine-dresser. *Tying up, pinching in, keeping the weeds down*, and *watching insects*, require prompt and careful attention.

During the latter part of May, and in all this month (June), the growth of the vine is very rapid; and such of the young shoots as are left, after thinning out the superfluous ones, require to be tied up to the stakes carefully, that they may not be broken off by high winds. Rye straw, wet, and cut to the length of about two feet, will make good ties. Some use strips of muslin, or other material (such as the threads of old coffee bags), and, when no better can be had, the stalks of blue-grass; but rye or wheat straw is the best. Take two or three straws, pass them round the branch and the stake; then twist the ends, and fasten them under the band as a sheaf of wheat is bound up. This tie is very simple, and made quick.

All superfluous shoots from the axils of the leaves, and suckers from the chain stalk or stem, should be removed with a knife, and the ends of the fruit-bearing branches pinched in, two joints beyond the last bunch of grapes. The judicious vine-dresser will soon learn to leave sufficient wood and leaves to sustain and nourish the crop of grapes, but not to permit it to be smothered by an overgrowth of either.

Light and air, to ripen the crop, is essential. Be careful to train two good canes or stalks for bearing wood next year; of course, these must not be pinched in, but let grow to their full extent, tied up to the top of the stake, and trained over to the next one.

The *weeds* may be kept down with the hoe or a short scythe, but ploughing or stirring the ground in the vineyard, this month, is not recommended.

Watch *insects* that appear to be injurious closely, and destroy them. They should never be permitted to increase in the vineyard.

Early in this month the *mildew* may be looked for, if it has not occurred late in May. It appears after a sudden change in the weather from warm to cold, or after heavy cold fog. Should the young grapes escape this enemy, and too many bunches remain on the vine, it might be well to pinch off the weakest, leaving only about fifteen to twenty bunches on a vine. This is as much as vines of six to ten years old ought to be permitted to bear, without permanent injury to their future growth.

BY WILLIAM SAUNDERS.

Vegetable Garden.—The beneficial effects of mulching to transplanted trees is well known, and very generally practised. Its effects in the vegetable garden are no less striking. The mowings of short lawn grass, rakings of leaves, &c., thrown around and over the roots of egg-plants, or between the rows of peas, and other crops, will be found of great service during dry weather. Previous to applying it, the soil should receive a deep hoeing, or forking up; if covered immediately afterwards, surface evaporation will be retarded, and the bad effects from heavy rains dashing on the surface prevented. Green vegetable matter, when used as above, should be spread very lightly; otherwise, injury may result from fermentation.

Thin out the rows of beets, carrots, parsnips, &c., as soon as the crops are fairly advanced; nothing is gained by deferring the operation too long, but much loss if the plants are crowded, as they will grow weak and slender; thin them to stand six inches apart.

Asparagus beds ought to be kept clean. Young plantations should not be cut very severely, as it will weaken the plants. The green portion only of this vegetable is fit for use; there is no occasion to cut below the surface with a view to getting it white. It is strange that white asparagus should ever be brought to market, and stranger still, that horticultural societies should award it a premium in preference to equally well-grown *green* samples. Water with salted rain-water, in the proportion of two ounces of salt to a gallon of water; this is preferable to sowing the salt over the plants.

Greenhouse.—Set a few of the finest calceolarias aside, to save seed from, and water them occasionally with liquid manure. Geraniums in flower will require more water than at any other time. A slight shading will help to preserve the blooms. Primula seed for early winter flowering plants, should now be sown. Do not take any of the hard-wooded choice plants out of the house until their growth is well advanced. Heaths, epacris, leschenaultias, pimeleas, &c., do as well in the house until August. Put in cuttings of chrysanthemums; those that are potted should be well pinched down for the next six weeks, in order to have bushy, well-flowered plants in the fall. Put them in 8-inch pots, to flower; stand them out in the sun, and keep them regularly supplied with water. The small flowered kind are beautiful pot plants. Put in a few heliotrope cuttings for flowering early in winter. Achemenes, gloxinias, gesneras, &c., will now require attention in potting and tying out; for such as Achemenes coccinea, A. longiflora, and A. rosea, a few twigs of any kind form the best means of support. A moist atmosphere is indispensable for the perfect growth of these plants. The dwarfest kinds do well in hanging baskets. Admit air chiefly by the top ventilators; when both top and bottom ventilators are open, it is scarcely possible to keep a sufficient degree of moisture in the air. Let the ventilators remain open all night, unless the thermometer ranges below 45°.

Flower Garden.—Herbaceous plants should receive more attention. Verbenas, petunias, and heliotropes, are all very beautiful, but not more so than Dielytra spectabilis, Campanula grandiflora, and C. nobilis, Delphiniums, Dianthus, Digitalis, Œnothera macrocarpa, Lobelias, Mimulus, Penstemon, Phlox, Aquilegia glandulosa, and many others that could be mentioned. These being all hardy, do not require to be removed or replaced yearly. Hollyhocks must not be forgotten; the improved double varieties are very beautiful.

Pleasure Ground and Lawn.—Frequent mowing is necessary to preserve a neat lawn; mow it when damp, and clean the cut grass thoroughly off with the patent grass rake. Lawn mowing machines are now constructed which economize labor, and leave a beautiful surface. Lately planted trees should be secured from swaying about in the wind; they will grow better if the soil round their roots is kept clear of weeds. Trees fairly established do not require this treatment. It destroys the harmony of the lawn when the grass does not grow close up to the stems of the trees and shrubs. For the same reason, all grass edgings should be kept low; nothing is more unsightly than deeply cut edging to roads and walks, although they should in all cases be well defined and neatly trimmed.

THE BRINCKLE ORANGE RASPBERRY.